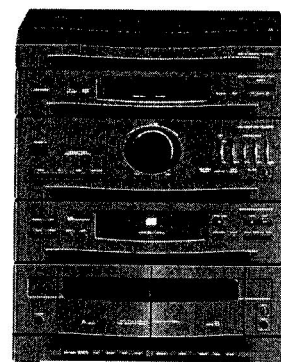


Service Service Service



Service Manual

COMPACT
disc
DIGITAL AUDIO

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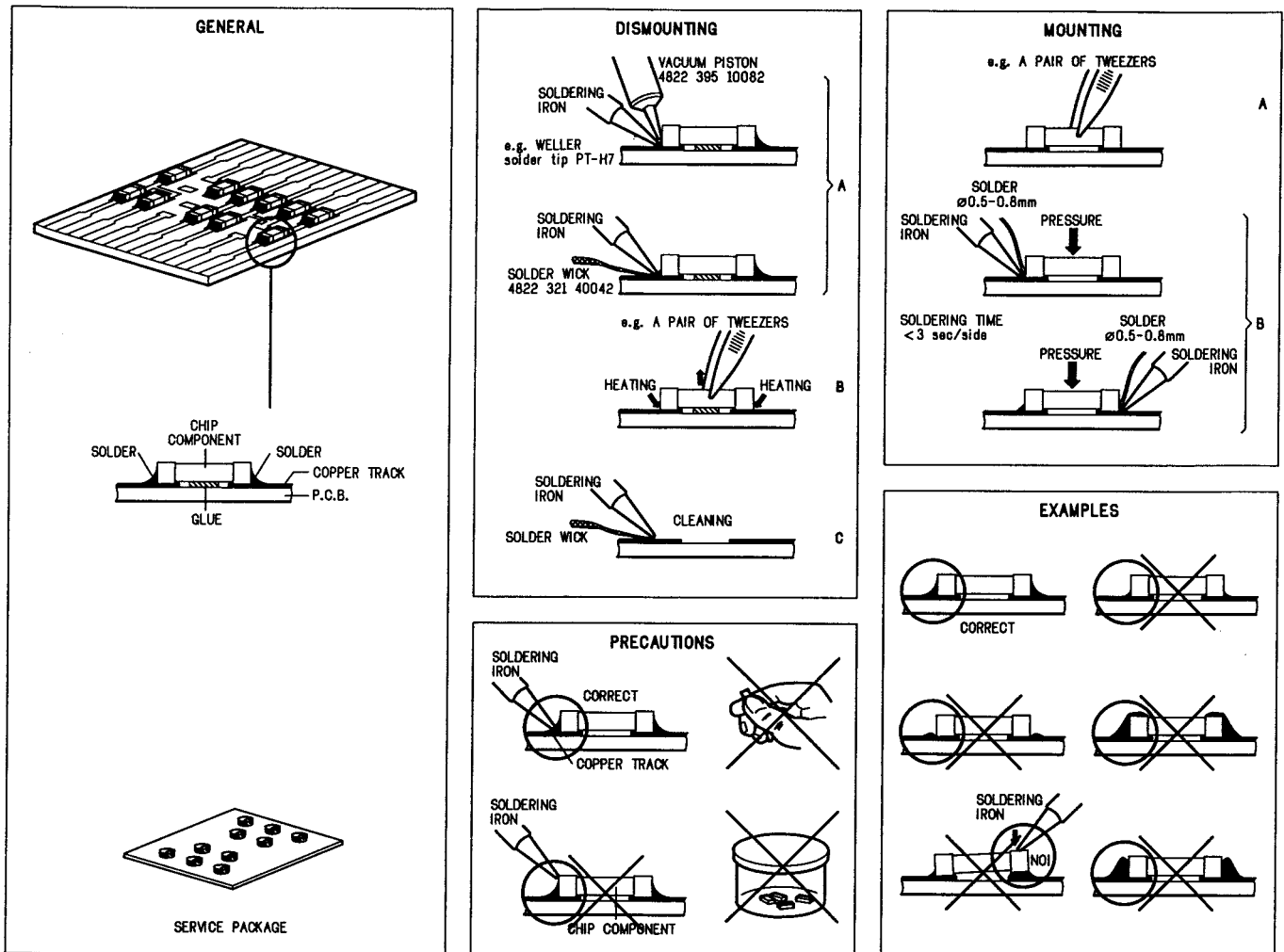
Annex

Service Manual Tape Transport RDN-12

**CLASS 1
LASER PRODUCT**



PHILIPS

**(GB) WARNING**

All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically. When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools at this potential.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation. Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le braceleterti d'une résistance de sécurité. Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Originalersatzteile zu verwenden.

(S) Varning !

Osynlig laserstrålning när apparaten är öppnad och spårren är urkopplad. Betrakta ej strålen.

(F)

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

ESD**(D) WARNUNG**

Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD). Unvorsichtige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren. Sorgen Sie dafür, daß sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind. Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambio identici a quelli specificati.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

(DK) Advarsel !

Usynlig laserstrålning ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for strålning.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD). Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat. Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(I) AVVERTIMENTO

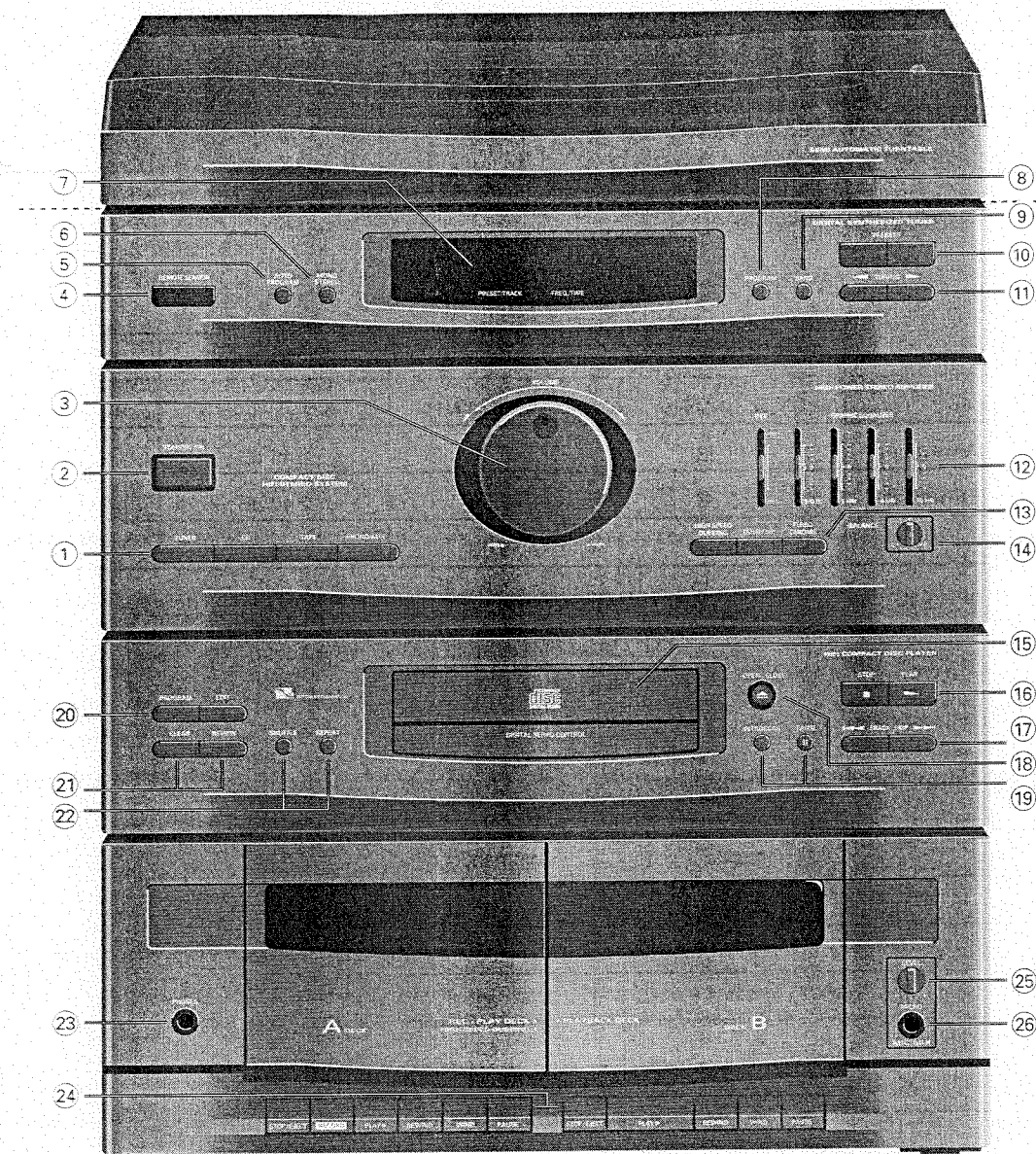
Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD). La loro longevità potrebbe essere fortemente ridotta in caso di non osservazione della più grande cautela alla loro manipolazione. Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un bracciale a resistenza. Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(NL)

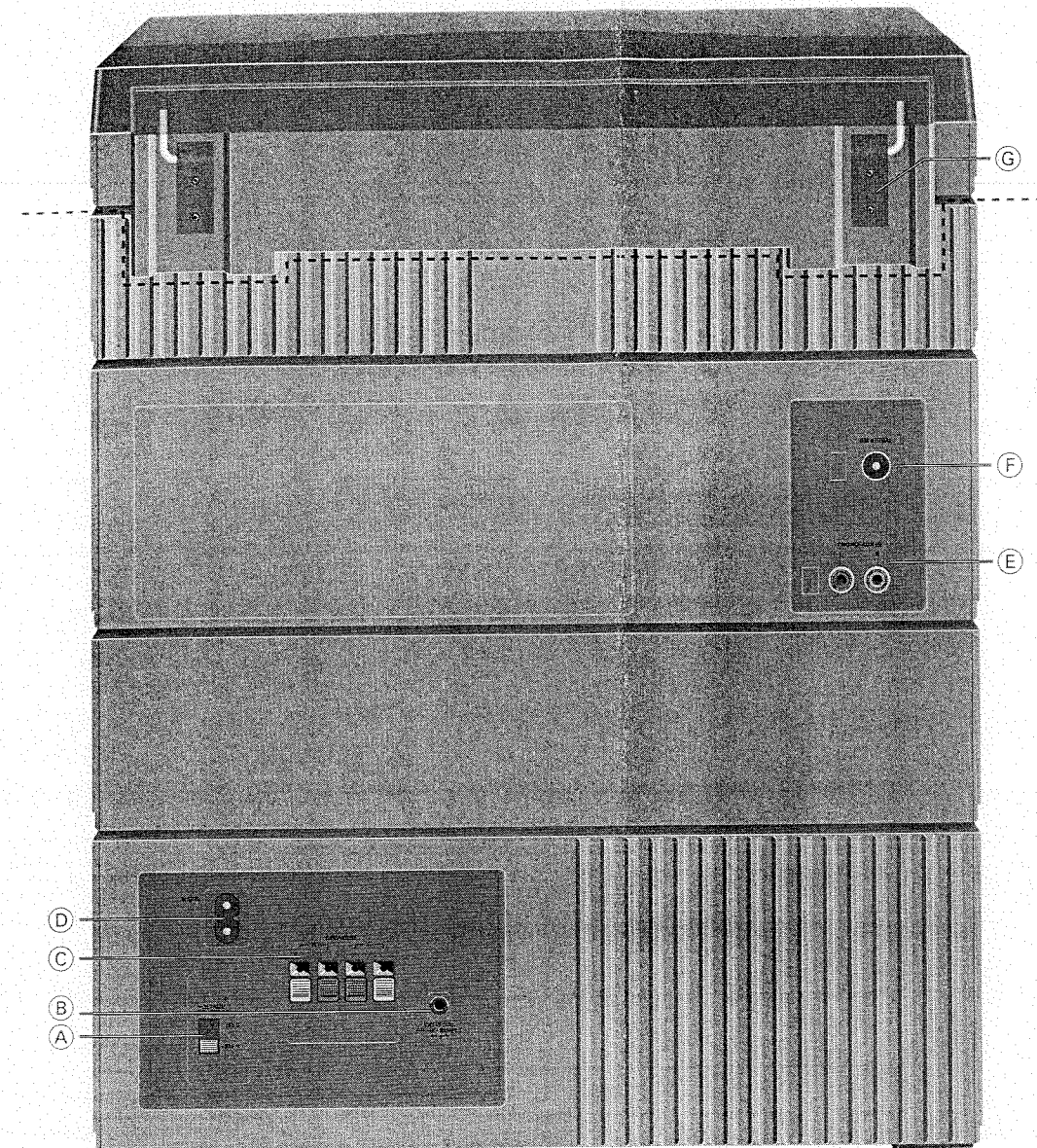
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.

(SF) Varoitus !

Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen !



- | | | | |
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| 1 Source selector | see page 25, 26 | 13 High Speed Dubbing ..1433 | see page 29, 30 |
| Tuner.....1440 | | Dolby NR.....1420 | |
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| Tape.....1444 | | 14 Balance.....3479 | see page 25, 26 |
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| 5 Auto Program.....1436 | see page 29, 30 | ◀▶.....1454 | see page 29, 30 |
| 6 Mono/Stereo.....1448 | see page 29, 30 | ▶▶.....1455 | see page 29, 30 |
| 7 Display.....1415 | see page 29, 30 | 18 Open/Close (CD).....1456 | see page 29, 30 |
| 8 Program (Tuner).....1435 | see page 29, 30 | 19 Introsan (CD).....1452 | see page 29, 30 |
| 9 Band.....1434 | see page 29, 30 | Pause (CD).....1451 | see page 29, 30 |
| 10 Presets | see page 29, 30 | 20 Program (CD).....1459 | see page 29, 30 |
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- | | |
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| B Phono supply.....1305 | see page 33, 34 |
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| D Mains socket.....1255 | see page 39 |
| E Aux / Phono sockets ..1408 | see page 25, 26 |
| F FM aerial socket.....1101 | see page 42 |
| for ECO 4 Tuner | |
| FM aerial socket.....1110 | see page 48 |
| for Tuner 92 | |

Not on all versions

VOLTAGE SELECTOR
MICRO MIX
RECORD PLAYER

Specification

General:

| | |
|-------------------|---|
| Mains voltage | : 220V / 50Hz for /20, /22 : 240V / 50Hz for /25 |
| Power consumption | : ≤ 105 W at maximum output power : ≤ 10 W in stand by |

Amplifier:

| | |
|--------------|--|
| Output power | : 2 x 20W at 6Ω D=10% |
| Music power | : 2 x 60W at 6Ω |
| Headphone | : 6,3mm stereo jack 25mW at 32Ω (≈0,9V at 32Ω) |

Power stage protection : Temperature

| | |
|--------------------|--|
| Frequency response | : 63 Hz - 14 kHz (-3dB) Limit : 63 Hz - 17 kHz (-3dB) Typical value |
|--------------------|--|

| | |
|--------------|------------------|
| Tone control | |
| DBB | : ±6dB at 100 Hz |
| 300 Hz | : ±6dB at 300 Hz |
| 1 kHz | : ±6dB at 1 kHz |
| 4 kHz | : ±6dB at 4 kHz |
| 10 kHz | : ±6dB at 10kHz |

| | |
|-------------------|----------|
| Input sensitivity | |
| PHONO/LINE | : 350 mV |

| Tuner: | FM | MW | LW |
|-----------------------|---|--|--|
| Tuning range | 87,5 - 108 MHz Grid 50 kHz | 522 - 1611 kHz (Grid 9kHz) 530 - 1700 kHz (only for /37) (Grid 10kHz) | 148 - 284 kHz (Grid 3kHz) |
| Aerial input | Coax F-Connector 75 Ω | Ferrite antenna | Ferrite antenna |
| IF | 10,7 MHz ± 25 kHz | 450 kHz ± 1 kHz | 450 kHz ± 1 kHz |
| Sensitivity | Mono : 26dB S/N Stereo : 46dB S/N Search tuning | ≤ 4 μV (2 μV typ.) ≤ 45 μV 7 μV typ. | 3 mV/m (1,5 mV/m typ.) ≤ 6mV/m ≤ 6mV/m |
| Distortion | ≤3% (2% typ.) RF=1mV Δf=75kHz | ≤5% (3% typ) RF=100mV/m m=80% | ≤5% (3% typ) RF=100mV/m m=80% |
| Channel separation | ≥26dB (30dB typ) | - | - |
| Image rejection ratio | 30 dB (40 dB typ.) | 27 dB (30 dB typ.) | 40 dB (43 dB typ.) |
| -3 dB limiting point | ≤ 5 μV (2 μV typ.) | | |

CD unit:

Have to be measured direct on internal connector 1300

| | |
|--------------------|---|
| Frequency response | : 20 - 20.000 Hz ±2 dB |
| Output level | : 2V ±3 dB |
| Signal/noise ratio | : ≥90 dB |
| Distortion | : ≤1% at 1 kHz |
| Channel difference | : ≤2 dB at 1 kHz |
| Channel crosstalk | : 50 dB max. |
| De emphasis | : 0 or 15/50 μs switched automatically by subcode on the disc |

| | |
|--------------|------------------|
| Laser | |
| Output power | : ≤500 μW |
| Wave length | : 780 nm ± 20 nm |

Recorder part:

| | |
|----------------------------|--|
| Tape speed | : 4,76 cm/s ±2% in Normal Speed : 8,5 cm/s ±12% in High Speed Dubbing |
| Wow & Flutter | : ≤ 0,4% |
| Winding speed | : ≤ 130 s for C60 cassette |
| Erase / Bias system | : AC 88 kHz ± 4 kHz |
| RIF-shift | : service solution on request |
| Distortion at 200 nWb/m | : ≤ 5% |
| Channel difference at PB | : ≤ 3dB |
| Channel difference overall | : ≤ 3dB |
| Channel separation | : ≥ 18dB at 1kHz |
| Track separation | : ≥ 55dB at 1kHz |

Phono part:

| | |
|-----------------|------------------------------------|
| Power supply | : 12V DC / 80mA |
| Wow & Flutter | : 0,25% JIS : 0,35% DIN |
| Operating speed | : 33⅓ and 45 rpm |
| Drive system | : Belt drive with automatic return |

| | IEC I | IEC I (dubbing) | IEC II | IEC II (dubbing) |
|---|-----------------|-----------------|-----------------|------------------|
| Frequency response -8 dB ¹⁾ | 100Hz - 12,5kHz | 100Hz - 12,5kHz | 100Hz - 12,5kHz | 100Hz - 12,5kHz |
| Signal to Hiss ratio ²⁾ A-weighted | ≥ 45 dB | ≥ 45 dB | ≥ 45 dB | ≥ 45 dB |
| Signal to Noise ratio ²⁾ FF-weighted | ≥ 40 dB | ≥ 40 dB | ≥ 40 dB | ≥ 40 dB |
| Erase attenuation ³⁾ | ≥ 55 dB | ≥ 55 dB | ≥ 55 dB | ≥ 55 dB |

¹⁾ typical value ²⁾ at 250 nWb/m ³⁾ Use a 1 kHz passfilter to minimize the wide band noise component.

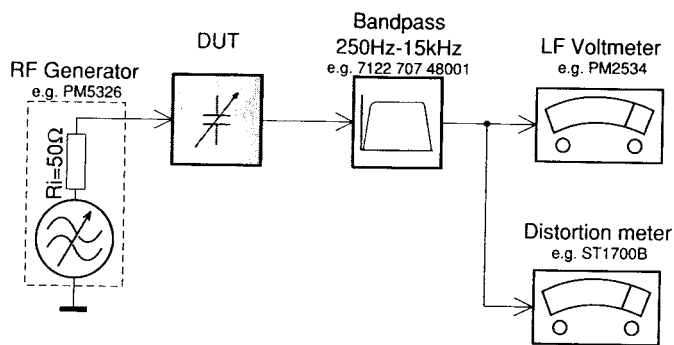
The set reacts on following RC5 commands:

| | Systemcode | Commandcode |
|----------------------|------------|-------------|
| Stand by | 17,20,21 | 12 |
| Tuner | 17 | 63 |
| Aux/Phono | 21 | 63 |
| CD | 20 | 63 |
| Volume up | 16 | 16 |
| Volume down | 16 | 17 |
| Repeat | 20 | 29 |
| Shuffle | 20 | 28 |
| Scan | 20 | 43 |
| Play (CD) | 20 | 53 |
| Pause (CD) | 20 | 48 |
| Next (CD) | 20 | 32 |
| Previous (CD) | 20 | 33 |
| Search Forward (CD) | 20 | 52 |
| Search Backward (CD) | 20 | 50 |
| Stop (CD) | 20 | 54 |
| Tuning up | 17 | 30 |
| Tuning down | 17 | 31 |
| Preset up | 17 | 32 |
| Preset down | 17 | 33 |

Measurement setup

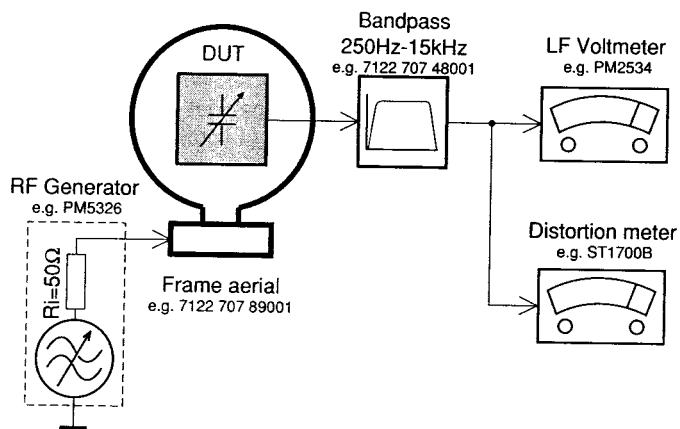
7

Tuner FM



Use a bandpass filter to eliminate hum (50Hz, 100Hz) and disturbance from the pilotone (19kHz, 38kHz).

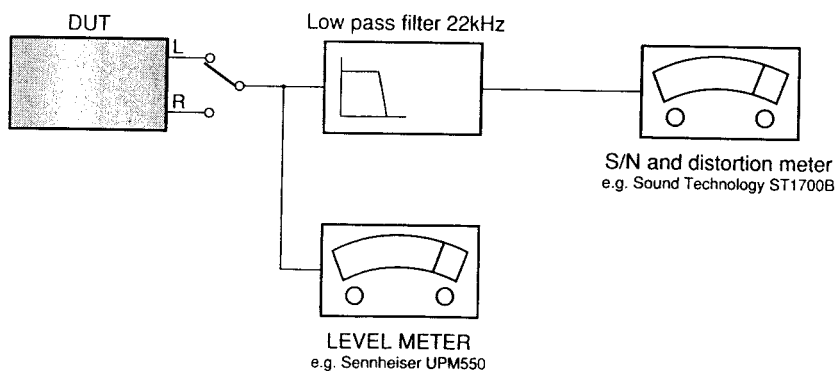
Tuner AM (MW, LW)



To avoid atmospheric interference all AM-measurements have to be carried out in a Faraday's cage. Use a bandpass filter (or at least a high pass filter with 250Hz) to eliminate hum (50Hz, 100Hz).

CD

Use Audio Signal Disc SBC429 4822 397 30184 (replaces test disc 3)
L.P.F. = 13th order filter 4822 395 30204



DUT Device Under Test

SERVICE HINTS

Service tools

| | |
|---|----------------|
| TORX screwdriver set SBC 163 | 4822 395 50145 |
| Audio signal disc SBC 429 | 4822 397 30184 |
| Test disc 5 (disc without errors) | |
| Test disc 5A (disc with dropout errors, black spots and finger prints) | |
| Test disc 5 and Test disc 5A = SBC 426/426A | 4822 397 30096 |
| Burn in test disc (65 min. 1kHz signal at -30dB level without "pause") | 4822 397 30155 |
| Universal test cassette Fe SBC 420 | 4822 397 30071 |
| Universal test cassette CrO₂ SBC 419 | 4822 397 30069 |

Dismantling of:

↳ **Brick** : see page 54

Front assy

- * Remove top cover as shown in picture 1.
- * Remove right side of the cabinet (10 screws).
- * Remove 3 bottom screws and 3 screws from left side wall on front side.
- * Remove 1 screw to CD metal support on rear.
- * Release 2 snaps (bottom-front) and turn whole front assy aside.

Tape Transports

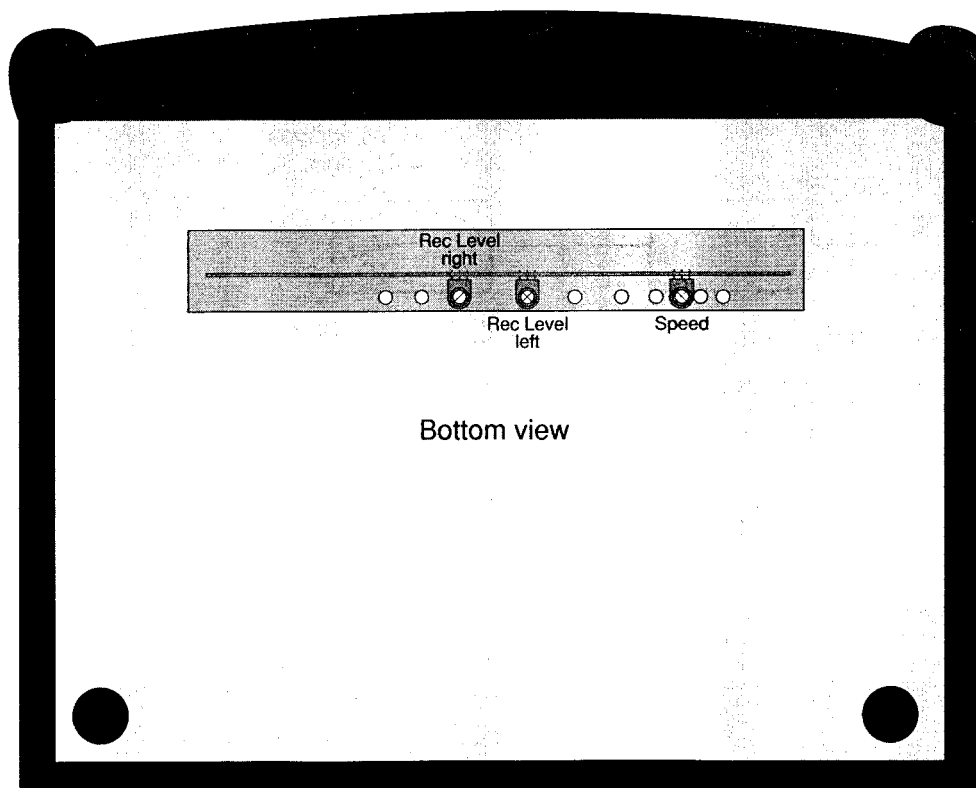
- * Separate Front assy as described above.
- * Loosen Recorder assy (6 screws).

Power Board

- * Remove top cover as shown in picture 1.
 - * Remove rear part of cabinet (20 screws).
 - * Loosen power board (4 screws).
 - * Take power board and place it behind the set.
- Remarks : Cable to headphone socket has to be disconnected.
Remove CD brick if necessary.

Playback,- Rec/Pb Head

- * Dismantle Cassette door as described in picture 3 and 4.
- * Press PLAY.
- * Replace the head.
- * Adjustment of Tape speed and Recording level can be done from the bottom side (see picture below).

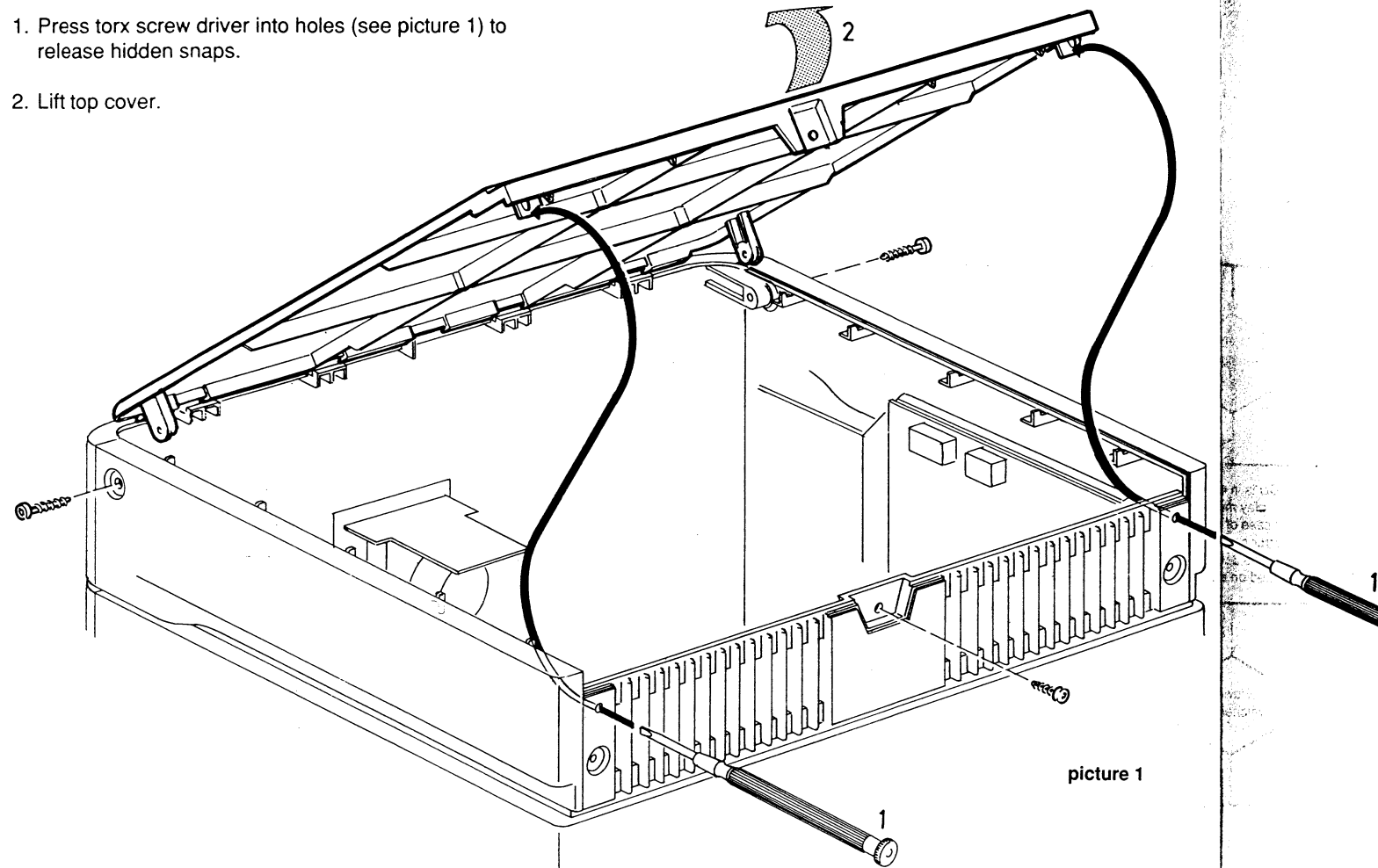


Dismantling Hints

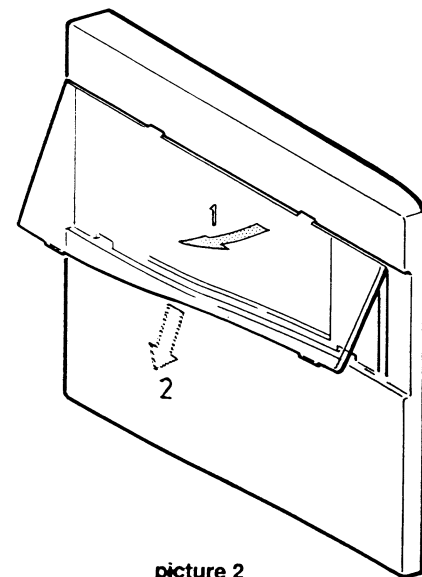
Dismantling of Top Cover

Remove 3x screws.

1. Press torx screw driver into holes (see picture 1) to release hidden snaps.
2. Lift top cover.

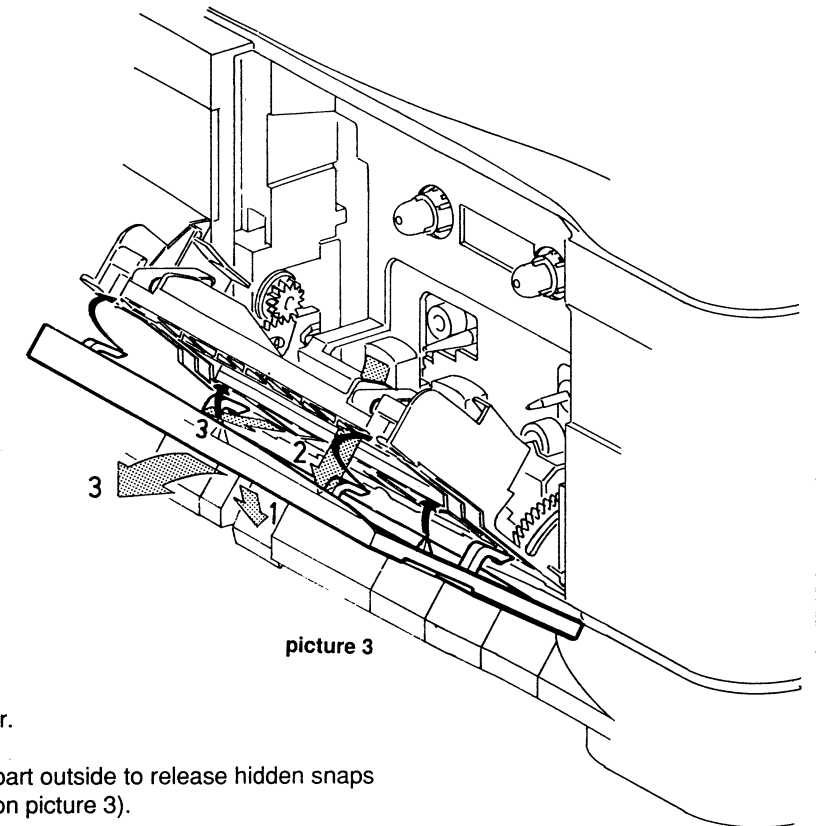


Dismantling Window of Cassette Door



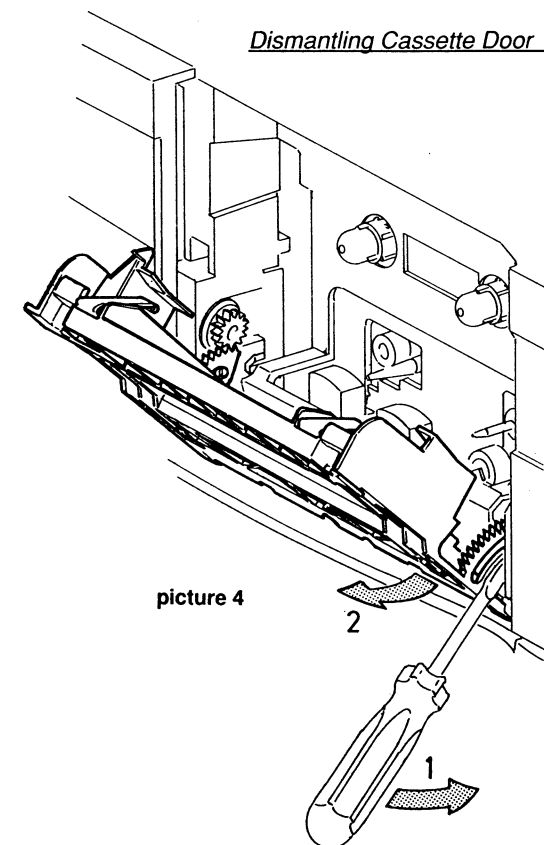
- 1) Press the window outside as shown in picture 2. You don't need any tool.

Dismantling Cassette Door Ornamental Part



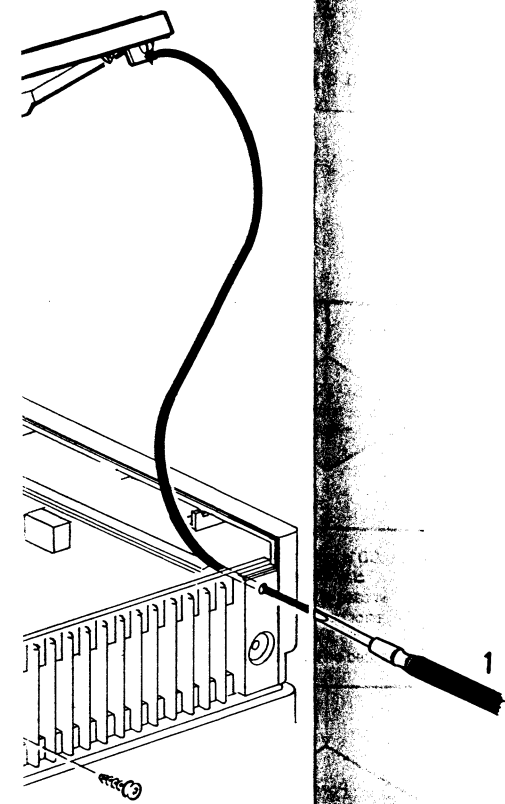
- 1) Open cassette door.
- 2) Press ornamental part outside to release hidden snaps (see black arrows on picture 3).
- 3) Pull ornamental part upwards.

Dismantling Cassette Door Technical Part

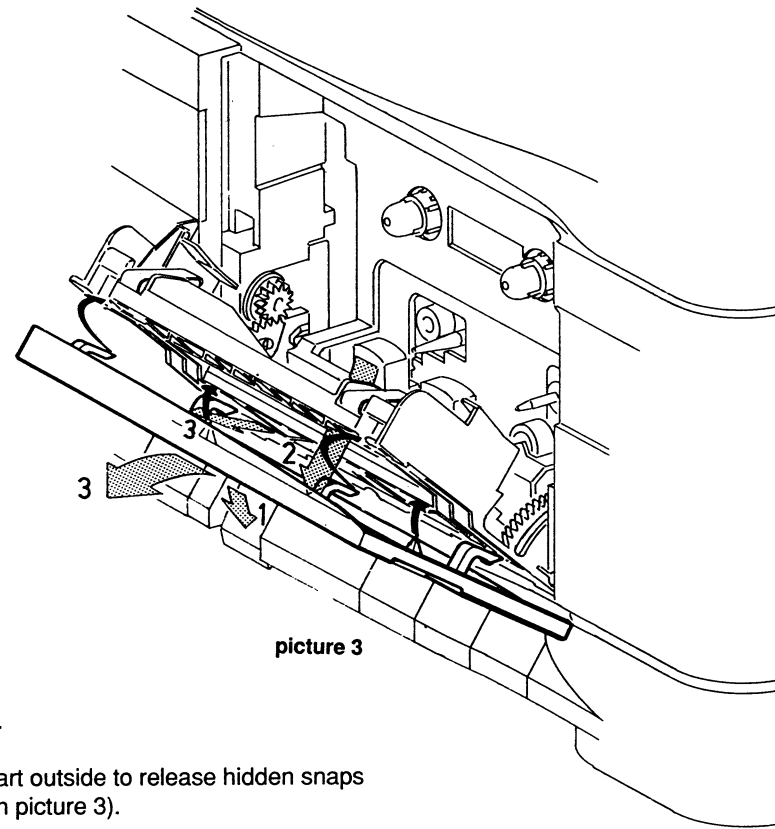


Remove ornamental part first.

- 1) Bend tooth segment with a screw driver to release snap as shown in picture 4.
- 2) Pull cassette door outside.

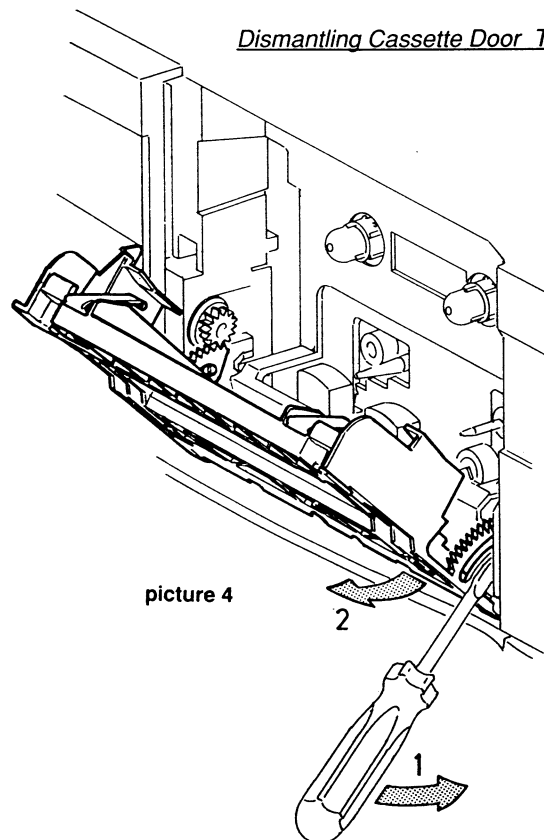
Dismantling Cassette Door Ornamental Part

picture 1



picture 3

- 1) Open cassette door.
- 2) Press ornamental part outside to release hidden snaps (see black arrows on picture 3).
- 3) Pull ornamental part upwards.

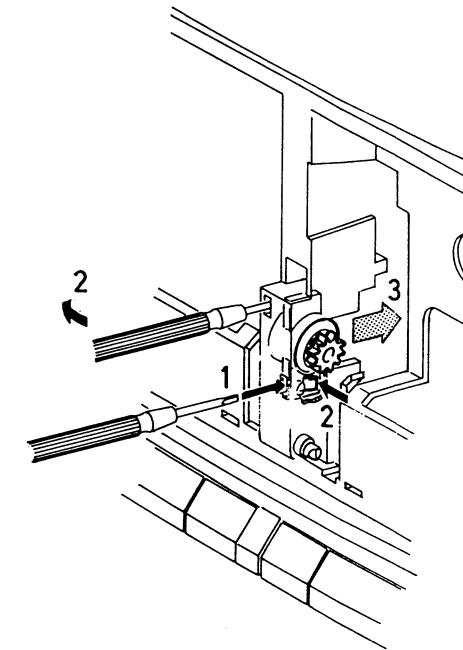


picture 4

Dismantling Cassette Door Technical Part

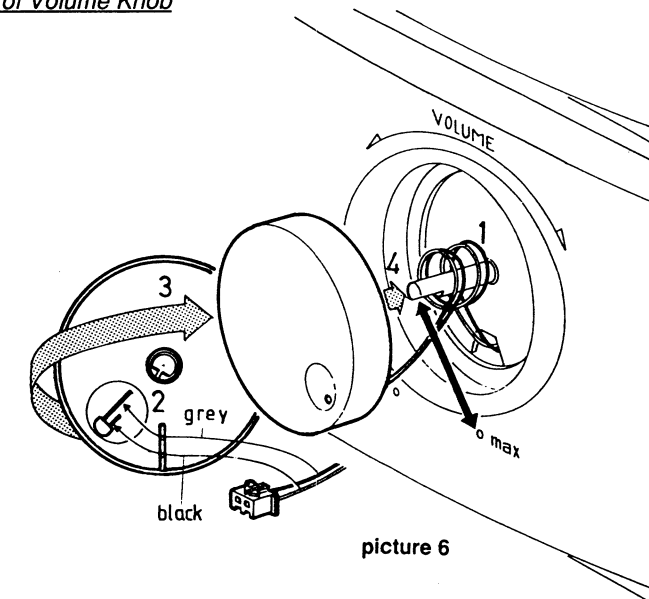
Remove ornamental part first.

- 1) Bend tooth segment with a screw driver to release snap as shown in picture 4.
- 2) Pull cassette door outside.

Dismantling of Damper

picture 5

- Remove Tape Transports and bracket (506) first.
- 1+2) Release two snaps as shown in picture 5.
 - 3) Pull damper outside.

Mounting of Volume Knob

picture 6

- 1) Turn Volume pot to max. (clockwise)
- 2) Pay attention to the polarity of the LED.
- 3) Turn the cable two times clockwise onto the axle.
- 4) Insert the knob.

SERVICE TEST PROGRAM

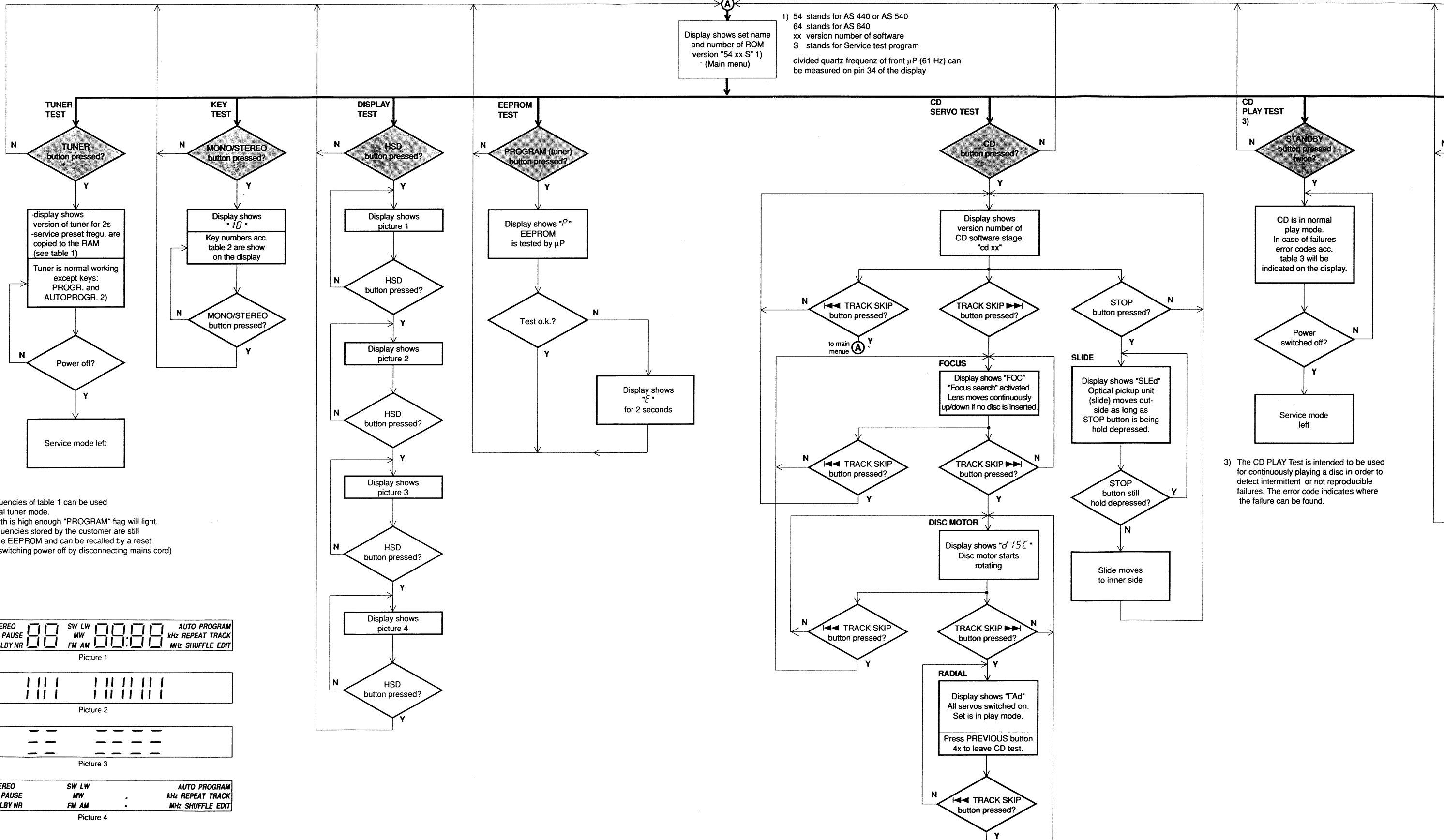
The service test program can be left:

- at each step: by switching power off (disconnect mains)
- from service main menu: by pressing the Standby button twice the set is switched to normal working mode except: * in TUNER mode still the service preset frequencies are available.
- * in CD mode the error codes will be displayed.

To start service test program hold **PROGR. & PRESET UP** buttons depressed while plugging in the mains cord

Display shows set name and number of ROM version "54 xx S* 1" (Main menu)

- 1) 54 stands for AS 440 or AS 540
64 stands for AS 640
xx version number of software
S stands for Service test program
divided quartz frequency of front μP (61 Hz) can be measured on pin 34 of the display



- 2) Preset frequencies of table 1 can be used as in normal tuner mode. If field strength is high enough "PROGRAM" flag will light. Preset frequencies stored by the customer are still stored in the EEPROM and can be recalled by a reset of the μP (switching power off by disconnecting mains cord)

RECORD STEREO SW LW 88.88 AUTO PROGRAM
FERRO HSD PAUSE MW 88.88 kHz REPEAT TRACK
CHROME DOLBY NR FM AM MHz SHUFFLE EDIT

Picture 1

||||| |||||

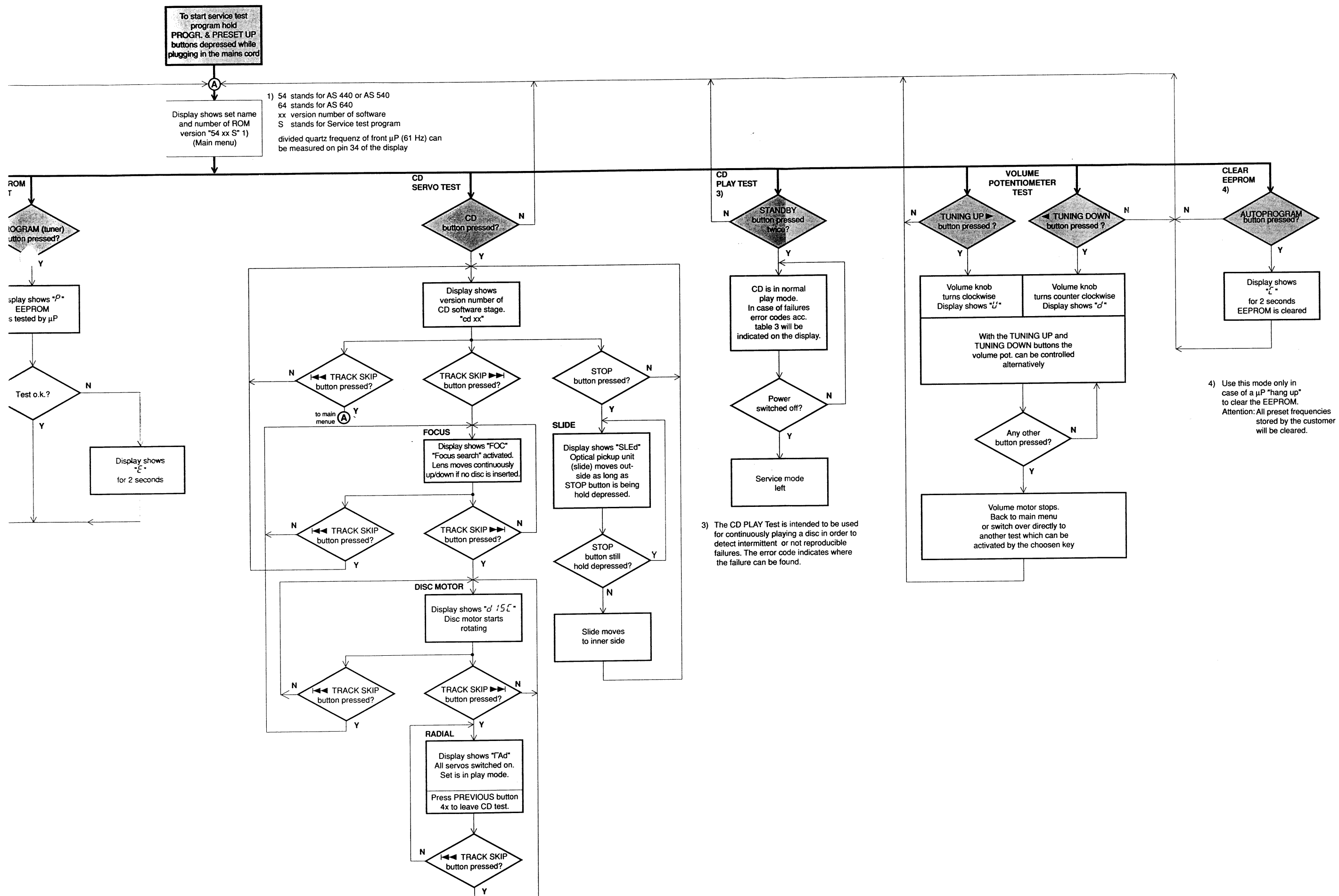
Picture 2

--- ---
--- ---

Picture 3

RECORD STEREO SW LW
FERRO HSD PAUSE MW kHz REPEAT TRACK
CHROME DOLBY NR FM AM MHz SHUFFLE EDIT

Picture 4




| VERSION | | | | | | | |
|---------|---------------|--------------------|------------|---------------|----------------|----------------|------|
| | EUR | EAS | USA | EUS | OSE | OSS | |
| PRESET | Europe 3-band | East Europe 3-band | USA 2-band | Europe 4-band | Oversea 2-band | Oversea 3-band | UNIT |
| 1 | 87,5 | 65,81 | 87,5 | 87,5 | 87,5 | 87,5 | MHz |
| 2 | 108 | 74 | 108 | 108 | 108 | 108 | MHz |
| 3 | 98 | 87,5 | 98 | 98 | 98 | 98 | MHz |
| 4 | 89,7 | 108 | 89,7 | 89,7 | 89,7 | 89,7 | MHz |
| 5 | 93 | 98 | 93 | 93 | 93 | 93 | MHz |
| 6 | 104,9 | 89,7 | 104,9 | 104,9 | 104,9 | 104,9 | MHz |
| 7 | 522 | 93 | 530 | 522 | 530 | 530 | kHz |
| 8 | 1611 | 104,9 | 1710 | 1611 | 1710 | 1710 | kHz |
| 9 | 540 | 522 | 540 | 540 | 540 | 540 | kHz |
| 10 | 549 | 1611 | 550 | 549 | 550 | 550 | kHz |
| 11 | 558 | 540 | 560 | 558 | 560 | 560 | kHz |
| 12 | 1494 | 549 | 1500 | 1494 | 1500 | 1500 | kHz |
| 13 | 153 | 558 | 1600 | 153 | 1600 | 1600 | kHz |
| 14 | 279 | 1494 | 1000 | 279 | 1000 | 3900 | kHz |
| 15 | 156 | 153 | | 156 | | 12100 | kHz |
| 16 | 198 | 279 | | 198 | | 4250 | kHz |
| 17 | 270 | 156 | | 270 | | 8000 | kHz |
| 18 | 999 | 198 | | 5900 | | 11900 | kHz |
| 19 | | 270 | | 18100 | | 1000 | kHz |
| 20 | | 999 | | 6200 | | | kHz |
| 21 | | | | 17000 | | | kHz |
| 22 | | | | 12000 | | | kHz |
| 23 | | | | 999 | | | kHz |

table 1

| Key activated | Display shows | Key activated | Display shows |
|---------------------|---------------|--------------------|---------------|
| Tuning up | 01 | Autoprogram | 17 |
| Tuning down | 03 | Mono / Stereo | 18 |
| Preset up | 04 | Tuner | 19 |
| Preset down | 02 | Stand by | 20 |
| Dolby ¹⁾ | 05 | Tape | 21 |
| Band | 06 | Phono / Aux | 22 |
| Program(Tuner) | 07 | CD | 23 |
| Fe/Cr ¹⁾ | 08 | — | — |
| Introsan | 09 | Repeat | 25 |
| Pause (CD) | 10 | Shuffle | 26 |
| « Track skip | 11 | Review | 27 |
| Track skip » | 12 | Clear | 28 |
| HS dubbing | 13 | — | — |
| Open/Close | 14 | Edit ¹⁾ | 30 |
| Stop (CD) | 15 | — | — |
| Play (CD) | 16 | Program (CD) | 32 |

table 2

If a key is activated at the remote control  is shown additionally to the key number as long as the key is hold depressed.

1) key not available in all versions.

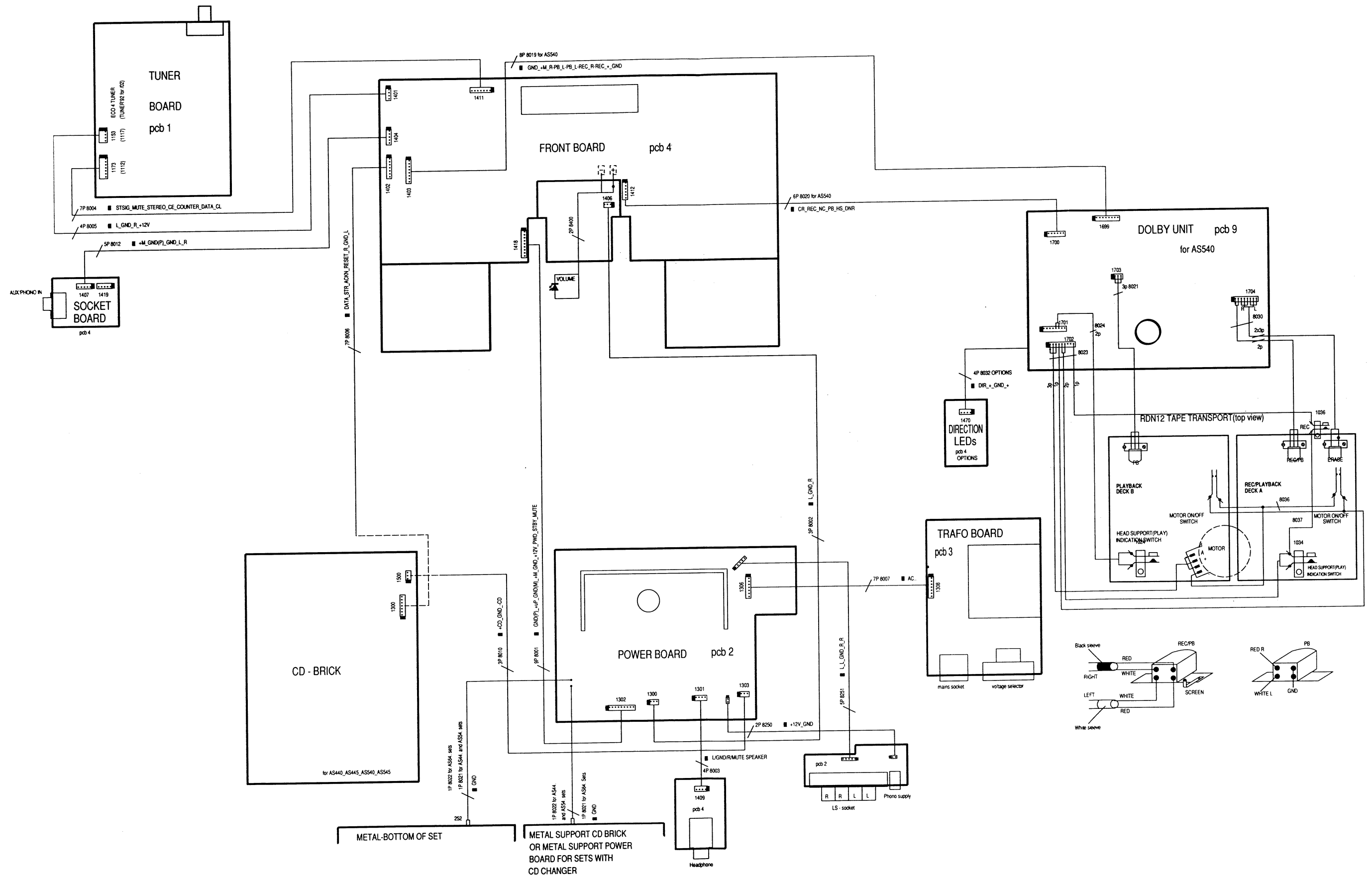
| Error code shown on the display | Description |
|---------------------------------|--|
| Er 1002 | Focus error |
| Er 1007 | Subcode error, no valid subcode |
| Er 1008 | TOC error, out of lead-in area while reading TOC |
| Er 1009 | CD4 + decoder error |
| Er 1010 | Radial error |
| Er 1012 | Fatal sledge error |
| Er 1013 | Turntable motor error |
| Er 1030 | Too many grooves to jump |
| Er 1031 | Search error |
| Er 1032 | Search binary error |
| Er 1033 | Search index error |
| Er 1034 | Search time error |
| Er 1037 | Selector error |
| Er 1050 | Edit calculation error |
| Er 1051 | Edit track count error |
| Er 1052 | Edit Optimal error |

table 3

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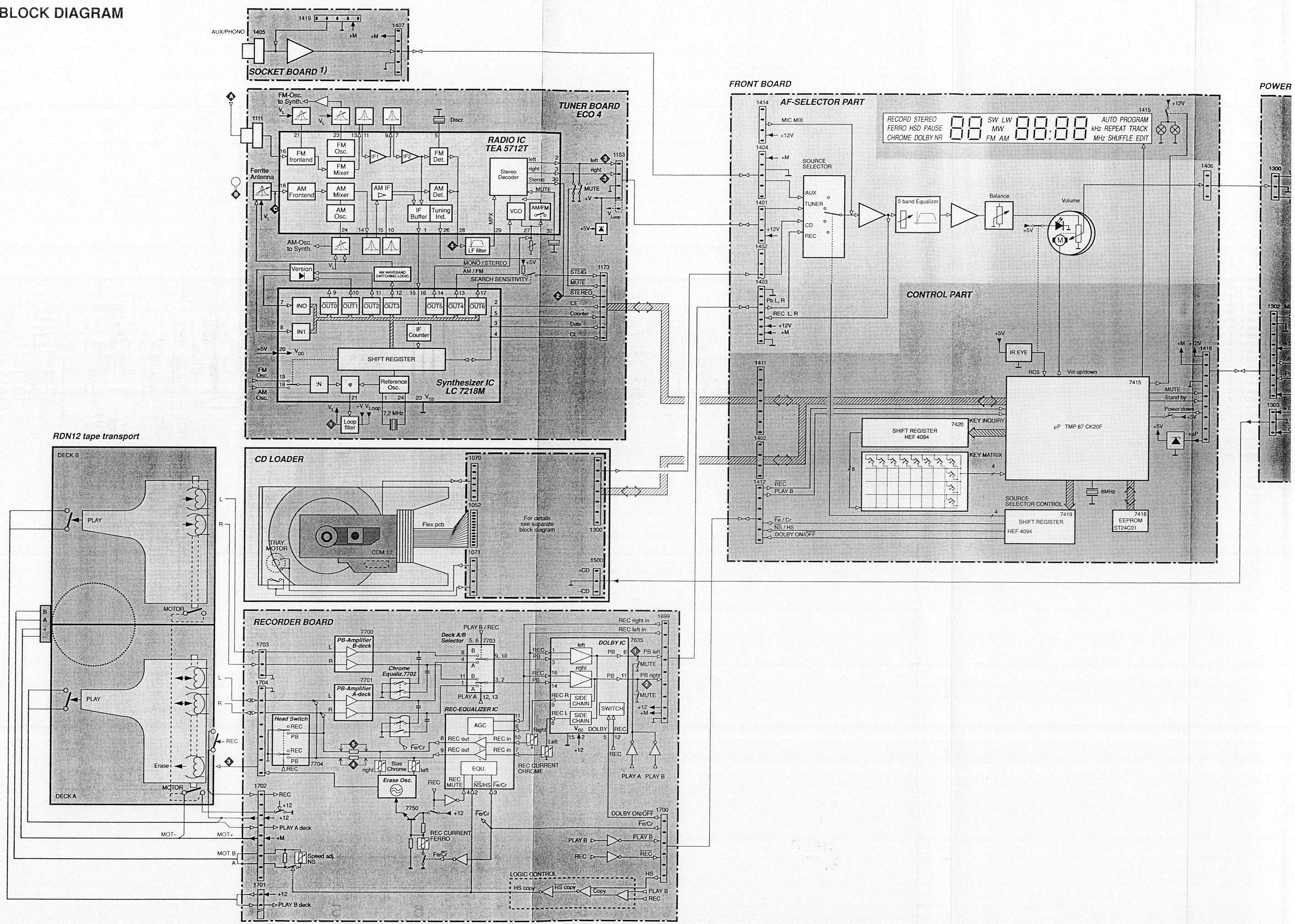
WIRING DIAGRAM

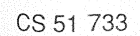


APPARATUS BLOCK DIAGRAM

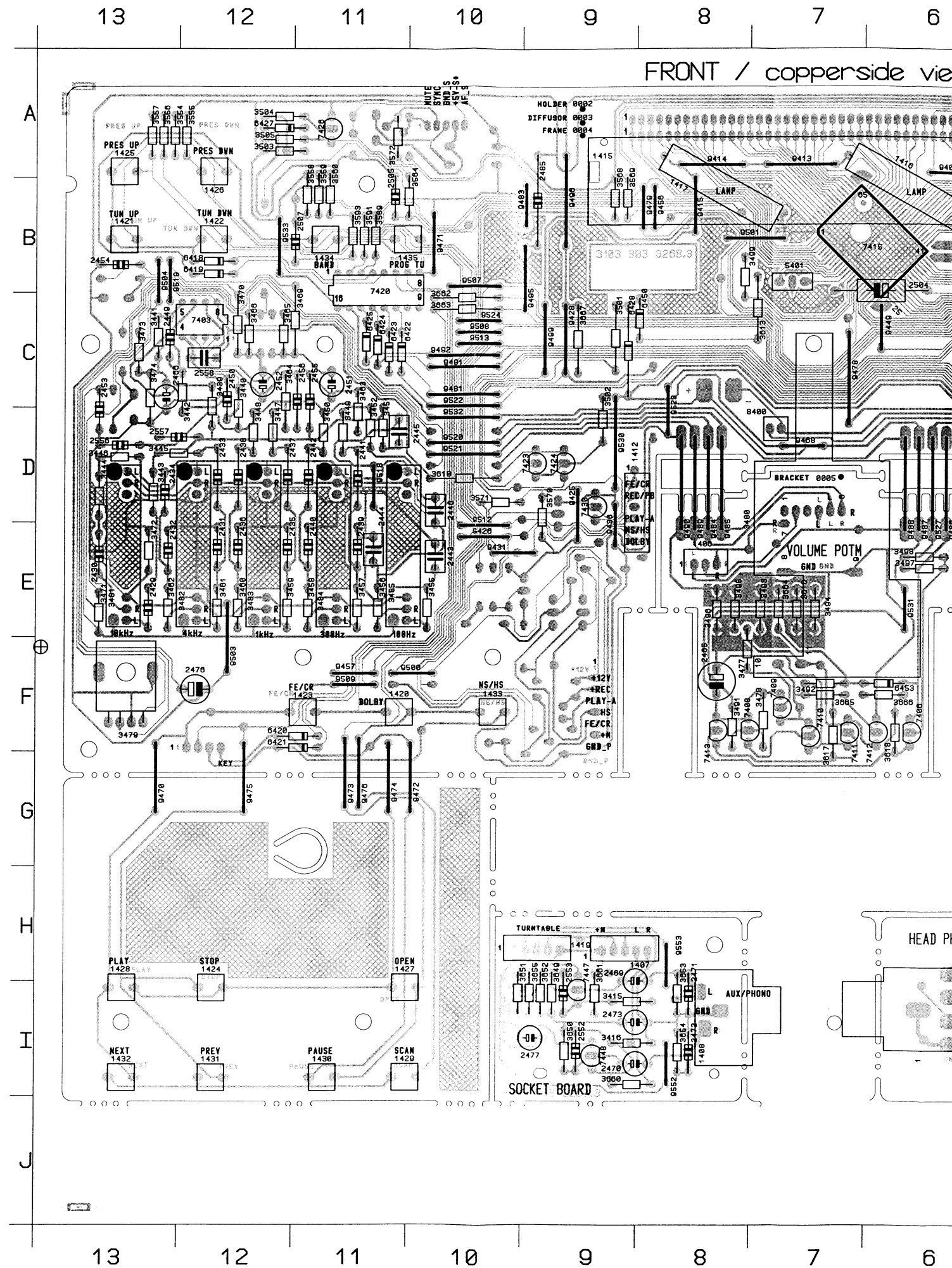
19

20



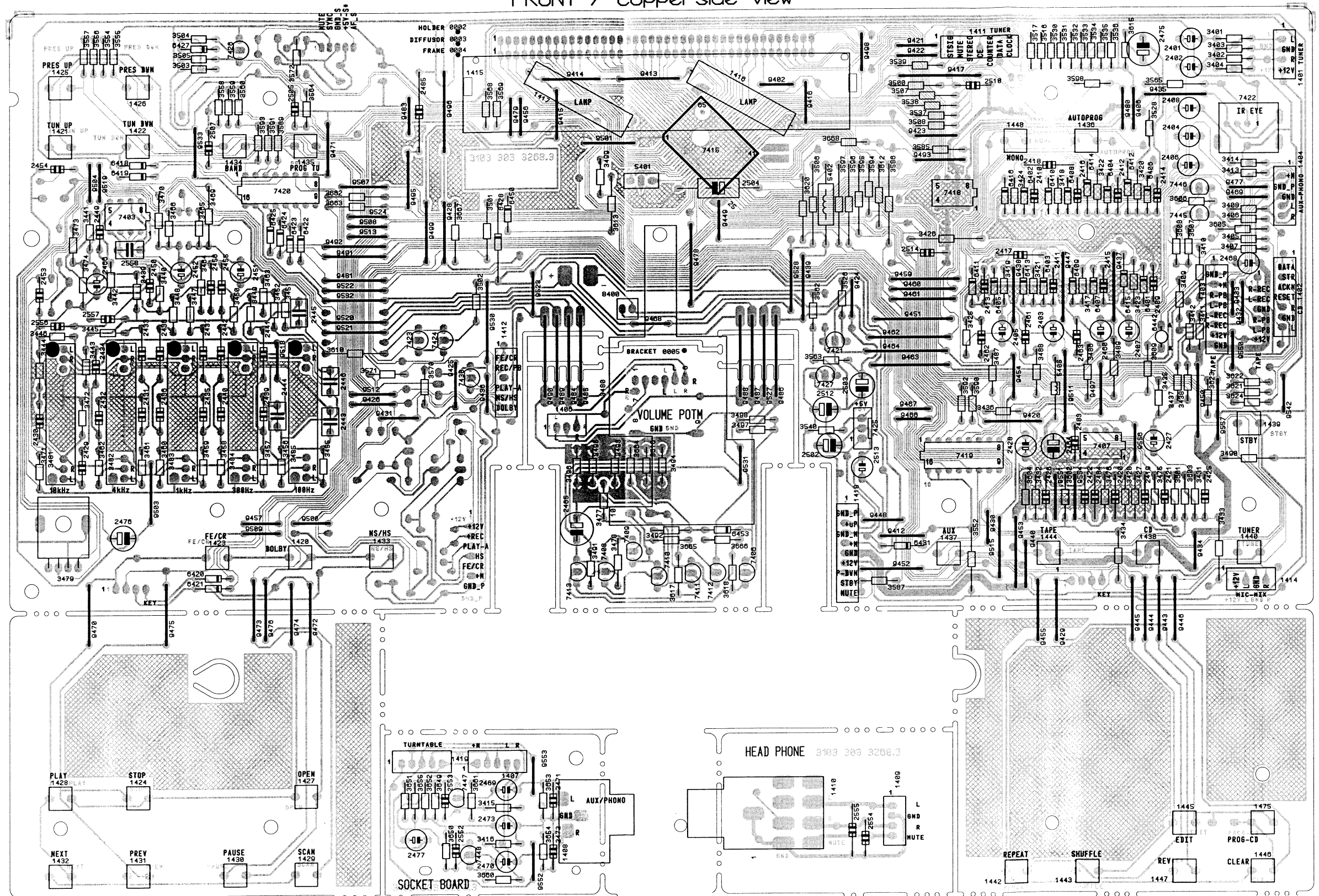


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| 0004 A 9 | 2406 C 13 | 3484 D 11 | 3098 B 5 |
| 0005 D 7 | 2408 C 1 | 3485 D 11 | 5401 B 7 |
| 1401 A 1 | 2409 H 9 | 3486 E 3 | 5402 B 5 |
| 1402 C 1 | 2470 I 9 | 3487 E 4 | 5405 E 3 |
| 1403 C 1 | 2471 H 8 | 3488 E 3 | 0401 D 2 |
| 1404 B 1 | 2472 I 8 | 3489 E 2 | 0402 C 3 |
| 1406 E 8 | 2473 I 9 | 3490 E 1 | 0403 D 3 |
| 1407 H 9 | 2475 A 2 | 3491 F 8 | 0404 C 3 |
| 1408 I 8 | 2476 F 12 | 3492 F 7 | 0405 D 4 |
| 1409 I 5 | 2477 I 10 | 3493 E 7 | 0406 C 2 |
| 1410 I 6 | 2483 E 3 | 3494 E 7 | 0407 D 3 |
| 1411 A 4 | 2484 F 3 | 3495 E 8 | 0408 C 3 |
| 1412 D 9 | 2485 A 9 | 3496 E 8 | 0409 D 3 |
| 1414 F 1 | 2502 E 5 | 3497 E 6 | 0410 C 3 |
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| 1417 B 7 | 2505 A 11 | 3500 A 4 | 0413 D 3 |
| 1418 F 5 | 2507 B 12 | 3501 C 9 | 0414 C 3 |
| 1419 H 10 | 2510 A 4 | 3502 C 9 | 0415 D 2 |
| 1420 F 11 | 2512 E 5 | 3503 A 11 | 0416 C 4 |
| 1421 B 13 | 2513 E 5 | 3504 A 12 | 0418 B 12 |
| 1422 B 12 | 2514 C 4 | 3505 A 12 | 0419 B 12 |
| 1423 F 12 | 2552 I 9 | 3506 C 5 | 0420 F 12 |
| 1424 I 12 | 2553 I 9 | 3507 B 4 | 0421 F 12 |
| 1425 A 13 | 2554 I 5 | 3508 B 4 | 0422 C 11 |
| 1426 A 12 | 2555 I 5 | 3516 A 3 | 0423 C 11 |
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| 1439 E 1 | 3410 D 2 | 3539 A 4 | 7409 F 7 |
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| 1441 I 3 | 3412 D 2 | 3552 F 4 | 7411 F 7 |
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| 1445 I 2 | 3415 I 9 | 3558 A 13 | 7418 C 4 |
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| 1447 I 2 | 3417 D 3 | 3558 B 11 | 7420 B 11 |
| 1448 B 3 | 3418 C 3 | 3559 B 11 | 7421 D 5 |
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| 2401 A 2 | 3420 C 2 | 3562 D 5 | 7423 D 9 |
| 2402 A 2 | 3421 D 3 | 3563 D 5 | 7424 D 9 |
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| 2415 C 3 | 3436 E 3 | 3591 B 11 | |
| 2416 B 3 | 3437 D 2 | 3592 D 4 | |
| 2417 C 4 | 3438 D 2 | 3593 B 11 | |
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| 2420 F 2 | 3441 C 13 | 3596 B 5 | |
| 2421 E 2 | 3442 D 13 | 3597 B 5 | |
| 2422 E 3 | 3443 D 13 | 3598 A 2 | |
| 2425 F 2 | 3444 D 13 | 3601 E 2 | |
| 2426 F 3 | 3445 D 12 | 3602 F 3 | |
| 2427 E 2 | 3446 D 13 | 3603 F 2 | |
| 2428 E 3 | 3447 D 12 | 3604 E 3 | |
| 2429 E 13 | 3448 D 12 | 3605 C 1 | |
| 2430 E 13 | 3449 D 11 | 3606 C 1 | |
| 2431 E 12 | 3450 D 11 | 3607 C 2 | |
| 2432 E 13 | 3451 D 11 | 3608 C 2 | |
| 2433 D 12 | 3452 D 11 | 3609 E 2 | |
| 2434 D 13 | 3455 E 10 | 3610 D 10 | |
| 2435 E 12 | 3456 E 11 | 3612 B 5 | |
| 2436 E 12 | 3457 E 11 | 3613 C 7 | |
| 2437 D 12 | 3458 E 11 | 3615 A 2 | |
| 2438 D 12 | 3459 E 12 | 3616 E 7 | |
| 2439 E 11 | 3460 E 12 | 3617 G 7 | |
| 2440 E 11 | 3461 E 12 | 3618 F 6 | |
| 2441 D 11 | 3462 E 13 | 3620 B 6 | |
| 2442 D 11 | 3463 C 11 | 3621 E 1 | |
| 2443 E 10 | 3464 D 12 | 3622 D 1 | |
| 2444 E 11 | 3465 C 12 | 3623 E 2 | |
| 2445 D 11 | 3466 C 12 | 3624 E 1 | |
| 2446 D 10 | 3469 C 12 | 3649 H 9 | |
| 2449 C 13 | 3470 C 12 | 3650 I 9 | |
| 2450 C 12 | 3471 E 13 | 3651 H 10 | |
| 2451 C 11 | 3472 E 13 | 3652 I 9 | |
| 2452 C 12 | 3473 C 13 | 3653 H 8 | |
| 2453 D 13 | 3474 D 13 | 3654 I 8 | |
| 2454 B 13 | 3475 F 2 | 3655 I 9 | |
| 2455 C 11 | 3476 E 3 | 3660 I 9 | |
| 2456 C 12 | 3477 F 8 | 3661 I 9 | |
| 2460 D 3 | 3478 F 7 | 3662 C 10 | |
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| 2462 D 4 | 3480 D 7 | 3664 E 7 | |
| 2463 D 3 | 3481 D 13 | 3665 F 7 | |



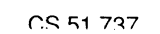
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 1420 H 11 2512 E 5 3503 A 11 0416 C 4
 1421 B 13 2513 E 5 3504 A 12 0418 B 12
 1422 B 12 2514 C 4 3505 A 12 0419 B 12
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 1424 I 12 2553 I 9 3507 B 4 0421 F 12
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 2406 B 2 3425 D 4 3567 B 9 7430 D 9
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 2409 C 2 3428 F 2 3572 A 11 7447 I 9
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 2441 D 11 3460 E 11 3614 B 6
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 2443 E 10 3462 E 11 3616 B 1
 2444 E 10 3463 E 11 3617 B 1
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 2446 D 11 3465 E 11 3619 B 2
 2447 D 11 3466 E 11 3620 B 2
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 2452 C 12 3471 E 11 3625 B 2
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 2457 C 12 3476 E 11 3630 B 2
 2458 D 10 3477 E 11 3631 B 2
 2459 D 10 3478 E 11 3632 B 2
 2460 D 10 3479 E 11 3633 B 2
 2461 D 10 3480 E 11 3634 B 2
 2462 D 4 3481 D 13 3635 B 2
 2463 D 3 3482 D 13 3636 B 2

FRONT / copperside view



from and to CONTROL PART

| | | | | | | | |
|--------|----|--------|----|--------|----|--------|----|
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| 0003 A | Q | 2455 F | 8 | 3483 D | 12 | 3007 C | 9 |
| 0004 A | Q | 2456 C | 13 | 3484 D | 11 | 3008 B | 5 |
| 0005 D | 7 | 2458 C | 1 | 3485 D | 11 | 3481 B | 7 |
| 1401 A | 1 | 2459 H | 9 | 3486 E | 3 | 3482 B | 5 |
| 1402 C | 1 | 2470 I | 9 | 3487 E | 4 | 3485 E | 3 |
| 1403 C | 1 | 2471 H | 8 | 3488 E | 3 | 3481 D | 2 |
| 1404 B | 1 | 2472 I | 8 | 3489 E | 2 | 3482 C | 3 |
| 1405 E | 6 | 2473 I | 9 | 3490 E | 1 | 3483 D | 3 |
| 1407 H | 6 | 2475 A | 2 | 3491 F | 8 | 3484 C | 3 |
| 1408 I | 5 | 2476 F | 12 | 3492 F | 7 | 3485 D | 2 |
| 1409 I | 5 | 2477 I | 10 | 3493 E | 7 | 3486 C | 4 |
| 1410 I | 5 | 2483 E | 3 | 3494 E | 7 | 3487 D | 3 |
| 1411 A | 4 | 2484 F | 3 | 3495 E | 8 | 3488 C | 3 |
| 1412 D | 5 | 2485 A | 9 | 3496 E | 8 | 3489 D | 3 |
| 1414 F | 1 | 2502 E | 5 | 3497 E | 6 | 3410 C | 3 |
| 1415 A | 5 | 2503 D | 5 | 3498 E | 6 | 3411 D | 4 |
| 1416 B | 5 | 2504 B | 6 | 3499 B | 8 | 3412 C | 2 |
| 1417 B | 7 | 2505 A | 11 | 3500 A | 4 | 3413 D | 3 |
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| 1420 H | 11 | 2512 E | 5 | 3503 A | 11 | 3416 C | 4 |
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| 1423 F | 12 | 2522 I | 9 | 3506 C | 5 | 3420 F | 12 |
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| 1426 A | 12 | 2525 I | 5 | 3510 A | 3 | 3423 C | 11 |
| 1427 I | 10 | 2526 D | 13 | 3517 A | 3 | 3424 C | 11 |
| 1428 I | 11 | 2527 D | 13 | 3520 D | 5 | 3425 C | 11 |
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| 1430 I | 11 | 3481 A | 1 | 3530 A | 3 | 3431 F | 5 |
| 1431 I | 12 | 3482 A | 1 | 3531 A | 3 | 3432 D | 2 |
| 1432 I | 13 | 3483 A | 1 | 3532 A | 3 | 3442 D | 2 |
| 1433 F | 10 | 3484 A | 1 | 3533 A | 3 | 3450 C | 8 |
| 1434 B | 11 | 3485 C | 1 | 3534 A | 3 | 3453 F | 7 |
| 1435 B | 11 | 3486 C | 1 | 3535 A | 3 | 3483 C | 12 |
| 1436 B | 3 | 3487 C | 1 | 3536 A | 2 | 3486 F | 6 |
| 1437 F | 4 | 3488 C | 1 | 3537 B | 4 | 3487 E | 2 |
| 1438 F | 2 | 3489 D | 2 | 3538 B | 4 | 3488 F | 7 |
| 1439 E | 1 | 3410 D | 2 | 3539 A | 4 | 3489 F | 8 |
| 1440 F | 1 | 3411 D | 2 | 3540 E | 6 | 3410 F | 7 |
| 1441 I | 3 | 3412 D | 2 | 3552 F | 4 | 3411 F | 7 |
| 1442 I | 3 | 3413 B | 1 | 3554 A | 13 | 3412 F | 6 |
| 1443 I | 3 | 3414 B | 1 | 3555 A | 12 | 3413 F | 6 |
| 1444 F | 3 | 3415 I | 9 | 3556 A | 13 | 3414 E | 4 |
| 1445 I | 2 | 3416 I | 9 | 3557 A | 13 | 3415 E | 4 |
| 1446 I | 1 | 3417 D | 3 | 3558 B | 11 | 3420 B | 11 |
| 1447 B | 2 | 3418 C | 3 | 3559 B | 11 | 3421 D | 5 |
| 1448 I | 1 | 3419 D | 4 | 3560 B | 11 | 3422 B | 9 |
| 1449 A | 2 | 3420 C | 2 | 3562 D | 5 | 3423 D | 0 |
| 1450 A | 2 | 3421 D | 3 | 3563 D | 5 | 3424 D | 5 |
| 1451 D | 2 | 3422 C | 3 | 3564 A | 11 | 3425 E | 5 |
| 1452 D | 2 | 3423 D | 2 | 3565 A | 2 | 3426 A | 11 |
| 1453 D | 2 | 3424 C | 3 | 3566 B | 9 | 3427 D | 5 |
| 1454 D | 2 | 3425 D | 4 | 3567 E | 9 | 3428 C | 2 |
| 1455 D | 2 | 3426 C | 4 | 3570 E | 6 | 3429 C | 2 |
| 1456 D | 2 | 3427 F | 2 | 3571 D | 10 | 3430 C | 2 |
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| 1459 D | 2 | 3430 F | 2 | 3574 A | 11 | 3433 I | 9 |
| 1460 D | 2 | 3431 F | 2 | 3575 A | 11 | 3434 I | 9 |
| 1461 D | 2 | 3432 F | 2 | 3576 A | 11 | 3435 I | 9 |
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| 1470 D | 2 | 3441 F | 2 | 3585 A | 11 | 3444 I | 9 |
| 1471 D | 2 | 3442 F | 2 | 3586 A | 11 | 3445 I | 9 |
| 1472 D | 2 | 3443 F | 2 | 3587 A | 11 | 3446 I | 9 |
| 1473 D | 2 | 3444 F | 2 | 3588 A | 11 | 3447 I | 9 |
| 1474 D | 2 | 3445 F | 2 | 3589 A | 11 | 3448 I | 9 |
| 1475 D | 2 | 3446 F | 2 | 3590 A | 11 | 3449 I | 9 |
| 1476 D | 2 | 3447 F | 2 | 3591 A | 11 | 3450 I | 9 |
| 1477 D | 2 | 3448 F | 2 | 3592 A | 11 | 3451 I | 9 |
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| 1493 D | 2 | 3464 F | 2 | 3608 A | 11 | 3467 I | 9 |
| 1494 D | 2 | 3465 F | 2 | 3609 A | 11 | 3468 I | 9 |
| 1495 D | 2 | 3466 F | 2 | 3610 A | 11 | 3469 I | 9 |
| 1496 D | 2 | 3467 F | 2 | 3611 A | 11 | 3470 I | 9 |
| 1497 D | 2 | 3468 F | 2 | 3612 A | 11 | 3471 I | 9 |
| 1498 D | 2 | 3469 F | 2 | 3613 A | 11 | 3472 I | 9 |
| 1499 D | 2 | 3470 F | 2 | 3614 A | 11 | 3473 I | 9 |
| 1500 D | 2 | 3471 F | 2 | 3615 A | 11 | 3474 I | 9 |
| 1501 D | 2 | 3472 F | 2 | 3616 A | 11 | 3475 I | 9 |
| 1502 D | 2 | 3473 F | 2 | 3617 A | 11 | 3476 I | 9 |
| 1503 D | 2 | 3474 F | 2 | 3618 A | 11 | 3477 I | 9 |
| 1504 D | 2 | 3475 F | 2 | 3619 A | 11 | 3478 I | 9 |
| 1505 D | 2 | 3476 F | 2 | 3620 A | 11 | 3479 I | 9 |
| 1506 D | 2 | 3477 F | 2 | 3621 A | 11 | 3480 I | 9 |
| 1507 D | 2 | 3478 F | 2 | 3622 A | 11 | 3481 I | 9 |
| 1508 D | 2 | 3479 F | 2 | 3623 A | 11 | 3482 I | 9 |
| 1509 D | 2 | 3480 F | 2 | 3624 A | 11 | 3483 I | 9 |
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| 1511 D | 2 | 3482 F | 2 | 3626 A | 11 | 3485 I | 9 |
| 1512 D | 2 | 3483 F | 2 | 3627 A | 11 | 3486 I | 9 |
| 1513 D | 2 | 3484 F | 2 | 3628 A | 11 | 3487 I | 9 |
| 1514 D | 2 | 3485 F | 2 | 3629 A | 11 | 3488 I | 9 |
| 1515 D | 2 | 3486 F | 2 | 3630 A | 11 | 3489 I | 9 |
| 1516 D | 2 | 3487 F | 2 | 3631 A | 11 | 3490 I | 9 |
| 1517 D | 2 | 3488 F | 2 | 3632 A | 11 | 3491 I | 9 |
| 1518 D | 2 | 3489 F | 2 | 3633 A | 11 | 3492 I | 9 |
| 1519 D | 2 | 3490 F | 2 | 3634 A | 11 | 3493 I | 9 |
| 1520 D | 2 | 3491 F | 2 | 3635 A | 11 | 3494 I | 9 |
| 1521 D | 2 | 3492 F | 2 | 3636 A | 11 | 3495 I | 9 |
| 1522 D | 2 | 3493 F | 2 | 3637 A | 11 | 3496 I | 9 |
| 1523 D | 2 | 3494 F | 2 | 3638 A | 11 | 3497 I | 9 |
| 1524 D | 2 | 3495 F | 2 | 3639 A | 11 | 3498 I | 9 |
| 1525 D | 2 | 3496 F | 2 | 3640 A | 11 | 3499 I | 9 |
| 1526 D | 2 | 3497 F | 2 | 3641 A | 11 | 3500 I | 9 |
| 1527 D | 2 | 3498 F | 2 | 3642 A | 11 | 3501 I | 9 |
| 1528 D | 2 | 3499 F | 2 | 3643 A | 11 | 3502 I | 9 |
| 1529 D | 2 | 3500 F | 2 | 3644 A | 11 | 3503 I | 9 |
| 1530 D | 2 | 3501 F | 2 | 3645 A | 11 | 3504 I | 9 |
| 1531 D | 2 | 3502 F | 2 | 3646 A | 11 | 3505 I | 9 |
| 1532 D | 2 | 3503 F | 2 | 3647 A | 11 | 3506 I | 9 |
| 1533 D | 2 | 3504 F | 2 | 3648 A | 11 | 3507 I | 9 |
| 1534 D | 2 | 3505 F | 2 | 3649 A | 11 | 3508 I | 9 |
| 1535 D | 2 | 3506 F | 2 | 3650 A | 11 | 3509 I | 9 |
| 1536 D | 2 | 3507 F | 2 | 3651 A | 11 | 3510 I | 9 |
| 1537 D | 2 | 3508 F | 2 | 3652 A | 11 | 3511 I | 9 |
| 1538 D | 2 | 3509 F | 2 | 3653 A | 11 | 3512 I | 9 |
| 1539 D | 2 | 3510 F | 2 | 3654 A | 11 | 3513 I | 9 |
| 1540 D | 2 | 3511 F | 2 | 3655 A | 11 | 3514 I | 9 |
| 1541 D | 2 | 3512 F | 2 | 3656 A | 11 | 3515 I | 9 |
| 1542 D | 2 | 3513 F | 2 | 3657 A | 11 | 3516 I | 9 |
| 1543 D | 2 | 3514 F | 2 | 3658 A | 11 | 3517 I | 9 |
| 1544 D | 2 | 3515 F | 2 | 3659 A | 11 | 3518 I | 9 |
| 1545 D | 2 | 3516 F | 2 | 3660 A | 11 | 3519 I | 9 |
| 1546 D | 2 | 3517 F | 2 | 3661 A | 11 | 3520 I | 9 |
| 1547 D | 2 | 3518 F | 2 | 3662 A | 11 | 3521 I | 9 |
| 1548 D | 2 | 3519 F | 2 | 3663 A | 11 | 3522 I | 9 |
| 1549 D | 2 | 3520 F | 2 | 3664 A | 11 | 3523 I | 9 |
| 1550 D | 2 | 3521 F | 2 | 3665 A | 11 | 3524 I | 9 |
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| 1553 D | 2 | 3524 F | 2 | 3668 A | 11 | 3527 I | 9 |
| 1554 D | 2 | 3525 F | 2 | 3669 A | 11 | 3528 I | 9 |
| 1555 D | 2 | 3526 F | 2 | 3670 A | 11 | 3529 I | 9 |
| 1556 D | 2 | 3527 F | 2 | 3671 A | 11 | 3530 I | 9 |
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| 1559 D | 2 | 3530 F | 2 | 3674 A | 11 | 3533 I | 9 |
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| 1561 D | 2 | 3532 F | 2 | 3676 A | 11 | 3535 I | 9 |
| 1562 D | 2 | 3533 F | 2 | 3677 A | 11 | 3536 I | 9 |
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| 1564 D | 2 | 3535 F | 2 | 3679 A | 11 | 3538 I | 9 |
| 1565 D | 2 | 3536 F | 2 | 3680 A | 11 | 3539 I | 9 |
| 1566 D | 2 | 3537 F | 2 | 3681 A | 11 | 3540 I | 9 |
| 1567 D | 2 | 3538 F | 2 | 3682 A | 11 | 3541 I | 9 |
| 1568 D | 2 | 3539 F | 2 | 3683 A | 11 | 3542 I | 9 |
| 1569 D | 2 | 3540 F | 2 | 3684 A | 11 | 3543 I | 9 |
| 1570 D | 2 | 3541 F | 2 | 3685 A | 11 | 3544 I | 9 |
| 1571 D | 2 | 3542 F | 2 | 3686 A | 11 | 3545 I | 9 |
| 1572 D | 2 | 3543 F | 2 | 3687 A | 11 | 3546 I | 9 |
| 1573 D | 2 | 3544 F | 2 | 3688 A | 11 | 3547 I | 9 |
| 1574 D | 2 | 3545 F | 2 | 3689 A | | | |



* NOT USED COMPONENTS



FOR ALL TRANSISTORS

○ FOR SURROUND ONLY

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6

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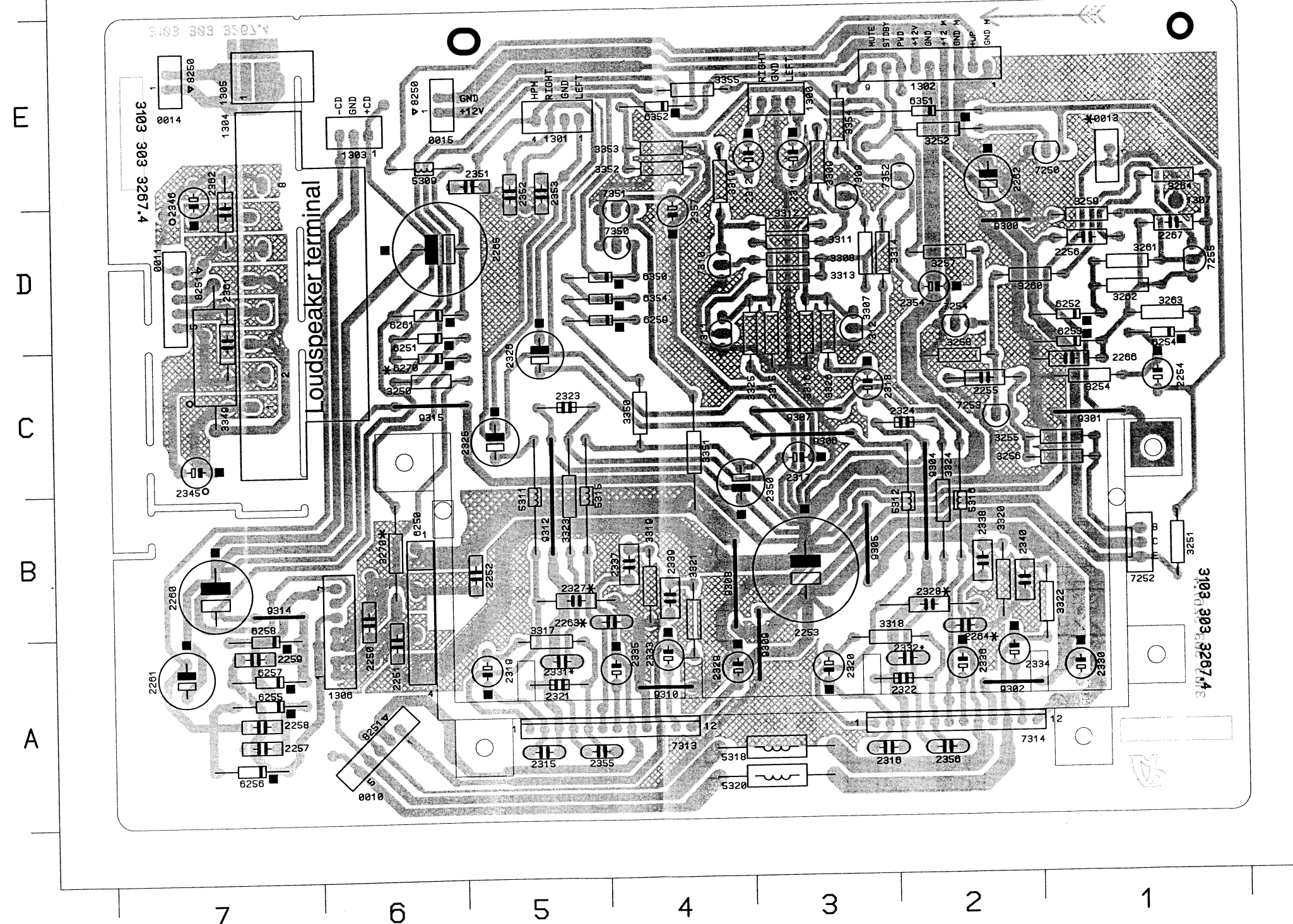
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POWER BOARD / Component side view



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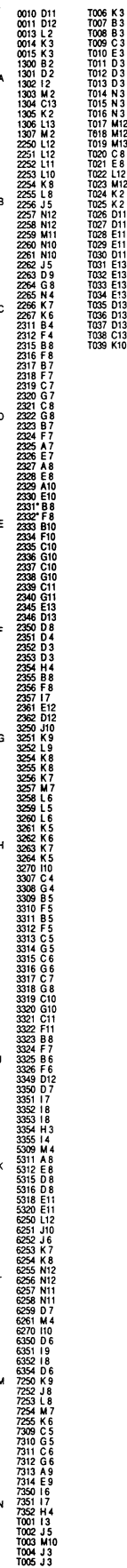
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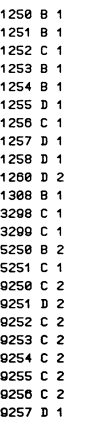
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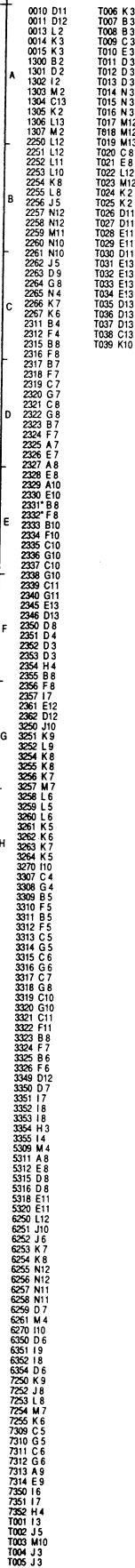
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| 9314 B 7 | 9302 A 2 | 7309 D 3 | 6201 D 6 | 5320 A 3 | 3351 C 4 | 3318 A 3 | 3307 D 3 | 3255 C 1 | 2353 E 5 | 2335 A 4 | 2324 C 2 | 2311 E 3 | 2257 A 7 | 1304 D 7 |
| 9312 B 5 | 9301 C 1 | 7255 D 1 | 6259 D 5 | 5318 A 3 | 3350 C 4 | 3317 A 5 | 3270 B 6 | 3254 C 1 | 2352 E 5 | 2334 A 2 | 2323 C 5 | 2267 D 1 | 2250 D 1 | 1303 E 6 |
| 9310 A 4 | 9300 D 2 | 7254 D 2 | 6258 A 7 | 5316 B 2 | 3349 C 7 | 3316 D 3 | 3204 E 1 | 3252 E 2 | 2351 E 5 | 2333 A 4 | 2322 A 2 | 2266 C 1 | 2255 C 2 | 1302 E 2 |
| 9309 A 3 | 7352 E 2 | 7253 C 2 | 6257 A 7 | 5315 B 5 | 3326 D 3 | 3315 D 3 | 3203 D 1 | 3251 B 1 | 2350 C 4 | 2332 A 2 | 2321 A 5 | 2265 D 6 | 2254 C 1 | 1301 E 5 |
| 9308 B 4 | 7351 D 4 | 7252 B 1 | 6256 A 7 | 5312 B 2 | 3325 D 3 | 3314 D 3 | 3202 D 1 | 3250 C 6 | 2346 E 7 | 2331 A 5 | 2320 A 3 | 2264 A 2 | 2253 B 3 | 1300 E 3 |
| 9307 C 3 | 7350 D 4 | 7250 E 1 | 6255 A 7 | 5311 B 5 | 3324 B 2 | 3313 D 3 | 3201 D 1 | 2362 D 7 | 2345 C 7 | 2330 A 1 | 2319 A 5 | 2263 B 4 | 2252 B 5 | 0015 E 6 |
| 9306 C 3 | 7314 A 2 | 6954 D 5 | 6254 D 1 | 5309 E 6 | 3323 B 5 | 3312 D 3 | 3200 D 2 | 2361 D 7 | 2340 B 2 | 2329 A 4 | 2318 C 3 | 2262 E 2 | 2251 A 6 | 0014 E 7 |
| 9305 B 3 | 7313 A 5 | 6952 E 4 | 6253 C 1 | 5308 E 4 | 3322 B 1 | 3311 D 3 | 3259 D 1 | 2357 D 4 | 2339 B 4 | 2328 B 2 | 2317 C 3 | 2261 A 7 | 2250 B 6 | 0013 E 1 |
| | 7312 D 3 | 6951 E 2 | 6252 D 1 | 5307 E 4 | 3321 B 4 | 3310 E 4 | 3258 C 2 | 2356 A 2 | 2338 B 2 | 2327 B 5 | 2316 A 3 | 2260 B 7 | 1307 E 1 | 0011 D 7 |
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| COMPONENTS VERSION | | □ | | | | VALUE OF FUSE | | | |
|-----------------------|--------------|------|------|------|------|---------------|----------------|----------------|----------------|
| | | 1250 | 9253 | 9254 | 9258 | 3208 | 1250 (1254) | 1251 (1253) | 1252 (1254) |
| /88 | (IEC 230V) | | | | /88 | | 5A | 630mA | 630mA |
| /85 ⁽¹⁾ | (240V) | X | | | /81 | | 5A | 630mA | 630mA |
| /17 | (UL 120V) | | | | /17 | X | 6,3A | 1,25A | 1,25A |
| /81 ⁽¹⁾ | (120V, 230V) | X | X | X | /81 | | 5A | 630mA | 630mA |
| /85 ⁽¹⁾ | (240V) | | | | /85 | | 5A | 630mA | 630mA |

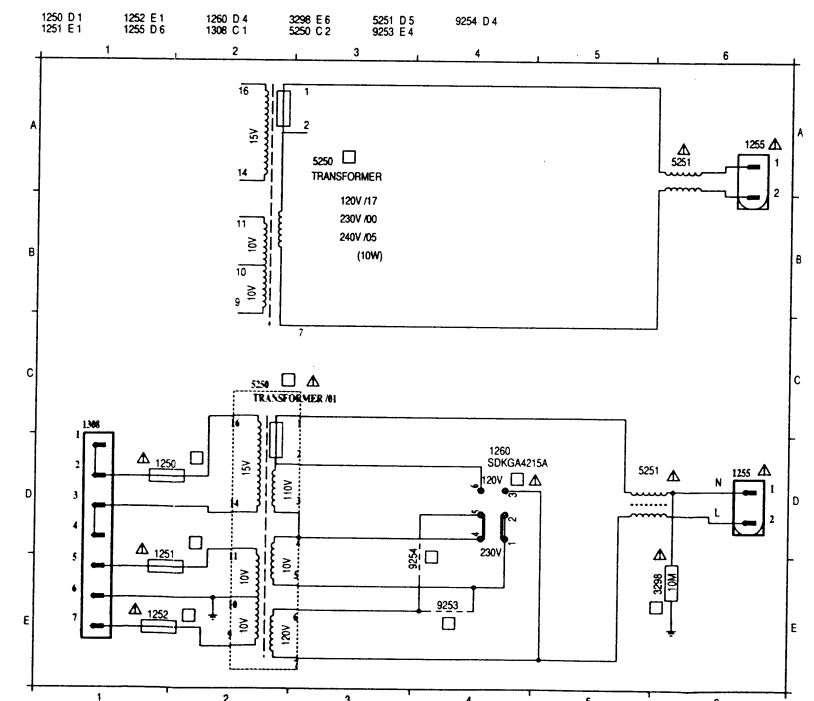
[illegible]

- COMPONENTS DEPENDING ON THE VERSION



| VERSION | COMPONENTS | | | 3298 | VALUE OF FUSE | | |
|--------------------------|------------|------|------|------|----------------|----------------|----------------|
| | 1209 | 9253 | 9254 | | 1250 (1254) | 1251 (1253) | 1252 (1250) |
| /88 (IEC 230V) | | | | /88 | 5A | 630mA | 630mA |
| /85 ¹⁾ (240V) | X | | /81 | 5A | 630mA | 630mA | 630mA |
| /17 (UL 120V) | | | /17 | X | 6,3A | 1,25A | 1,25A |
| /81 /10 (120V, 230V) | X | X | /81 | | 5A | 630mA | 630mA |
| /85 ¹⁾ (240V) | | | /85 | 5A | 630mA | 630mA | 630mA |

1) for 15W and 20W versions /01 transformer
for 10W version /05 transformer



RECORDER ADJUSTMENT TABLE

| Adjustment | Cassette/Source | Recorder mode | Measure on | Read on | Adjust | |
|------------------------------|--|----------------------------|--|-------------------------------------|--------------------|-----------------------------------|
| | | | | | with | to |
| Azimuth ¹⁾ | SBC419 or SBC420 8kHz | PLAY A-Deck PLAY B-Deck | <div>1</div> <div>2</div> or Phone socket | mV - meter | left-hand screw | maximum output left = right |
| Motor speed ²⁾ | SBC419 or SBC420 3150Hz | PLAY A + B-Deck | <div>1</div> <div>2</div> or Phone socket | Wow and Flutter meter or Counter | 3787 | 0±1% |
| Normal speed | | HS-Dubbing | | Counter | check only | > 5200Hz |
| Bias current | | REC A-Deck Chrome | <div>4</div> | mV-meter | 3763 left | 5,9mV |
| | | REC A-Deck Ferro | <div>5</div> | | 3764 right | 5,9mV |
| Record current ⁴⁾ | SBC419 | Rec A-Deck Chrome | <div>4</div> | mV - meter | 3667 left | 0,62mV |
| | <div>A</div> <div>B</div> Adjust input level to 300mV ± 1dB on | | <div>5</div> | | 3668 right | 0,62mV |
| | <div>1</div> or <div>2</div> | Rec A-Deck Ferro | <div>4</div> | mV - meter | check | 0,44mV ± 1dB |
| | SBC420 | | <div>5</div> | | check | 0,44mV ± 1dB |

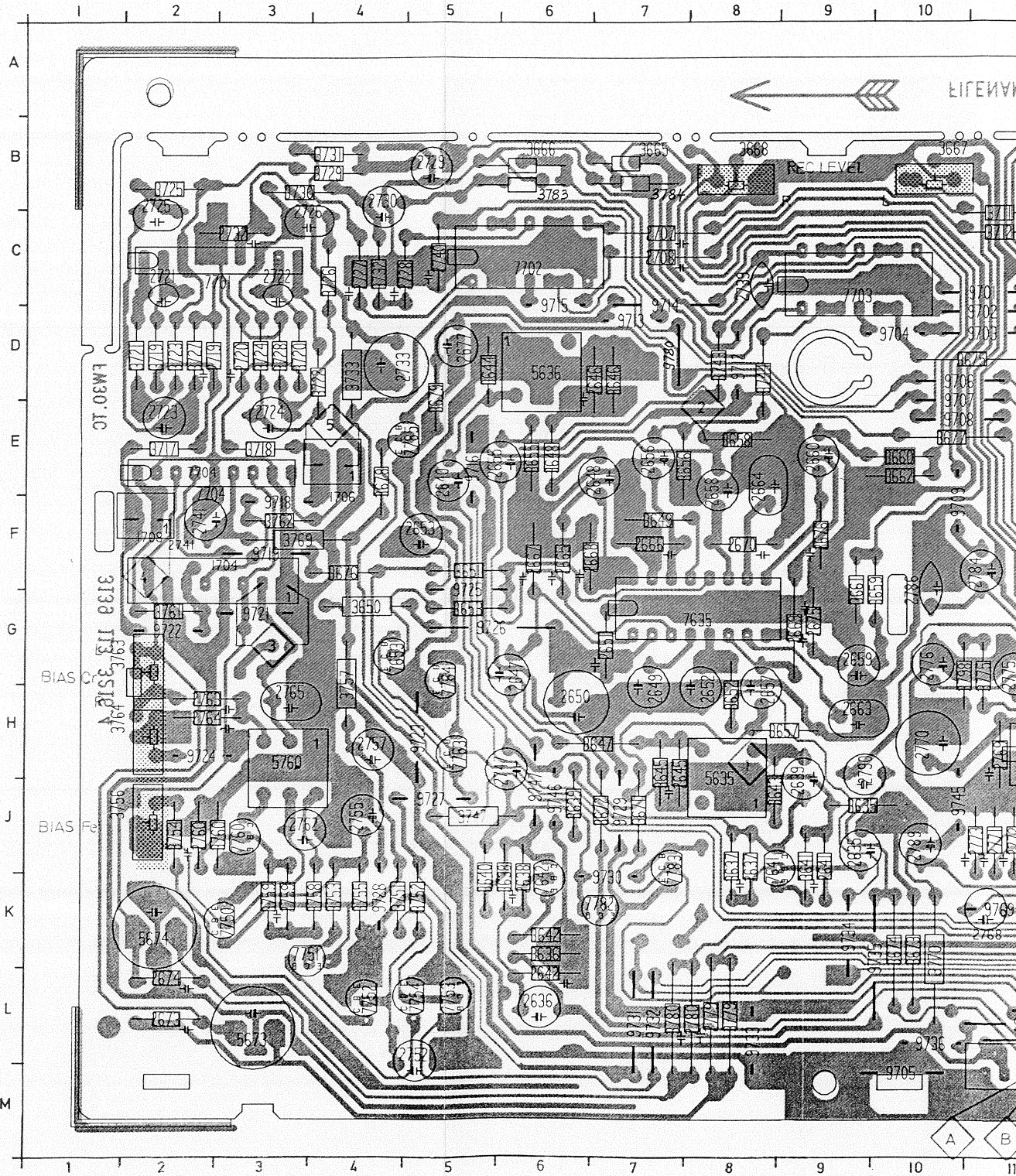
CHECK ONLY

| Check | Cassette/Source | Recorder mode | Measure on | Read on | Check if |
|------------------------------|---|---------------------------------------|--|-----------------------|-------------------------------------|
| Wow and Flutter | SBC419 or SBC420 3150Hz | PLAY A or B-Deck PLAY A and B-Deck | <div>1</div> <div>2</div> or Phone socket | Wow and Flutter meter | ≤ 0,3% weighted ≤ 0,35% weighted |
| Erase Oscillator | any | REC A-deck | <div>3</div> Erase head | mV - meter | Fe ≥ 11,8Vrms Cr ≥ 20,8Vrms |
| Voltage | | | | Counter | f = 88kHz ± 4kHz |
| Frequency | | | | | |
| Playback level ⁵⁾ | Dolby reference cassette (SBC419 or SBC420, 315Hz) | PLAY A-Deck | <div>1</div> <div>2</div> | mV - meter | 300mV ± 1dB (350mV ± 1dB) |
| | | PLAY B-Deck | | | 300mV ± 1dB (350mV ± 1dB) |
| Frequency response | SBC419 or SBC420 | PLAY A or B-Deck | <div>1</div> <div>2</div> | mV - meter | 125Hz - 12,5kHz within 8dB |
| Playback | <div>A</div> <div>B</div> | REC A-Deck | <div>1</div> <div>2</div> | | 125Hz - 12,5kHz within 10dB |
| Overall | input level = 3mV | PLAY A-Deck | <div>1</div> <div>2</div> | | 125Hz - 8kHz dubbing |
| Distortion | SBC419 or SBC420 | REC A-Deck | <div>1</div> <div>2</div> | mV - meter | D ≤ 3% |
| | | PLAY A-Deck | | | |

SBC 420 Service code: 4S22 397 30071
SBC 419 Service code: 4S22 397 30069

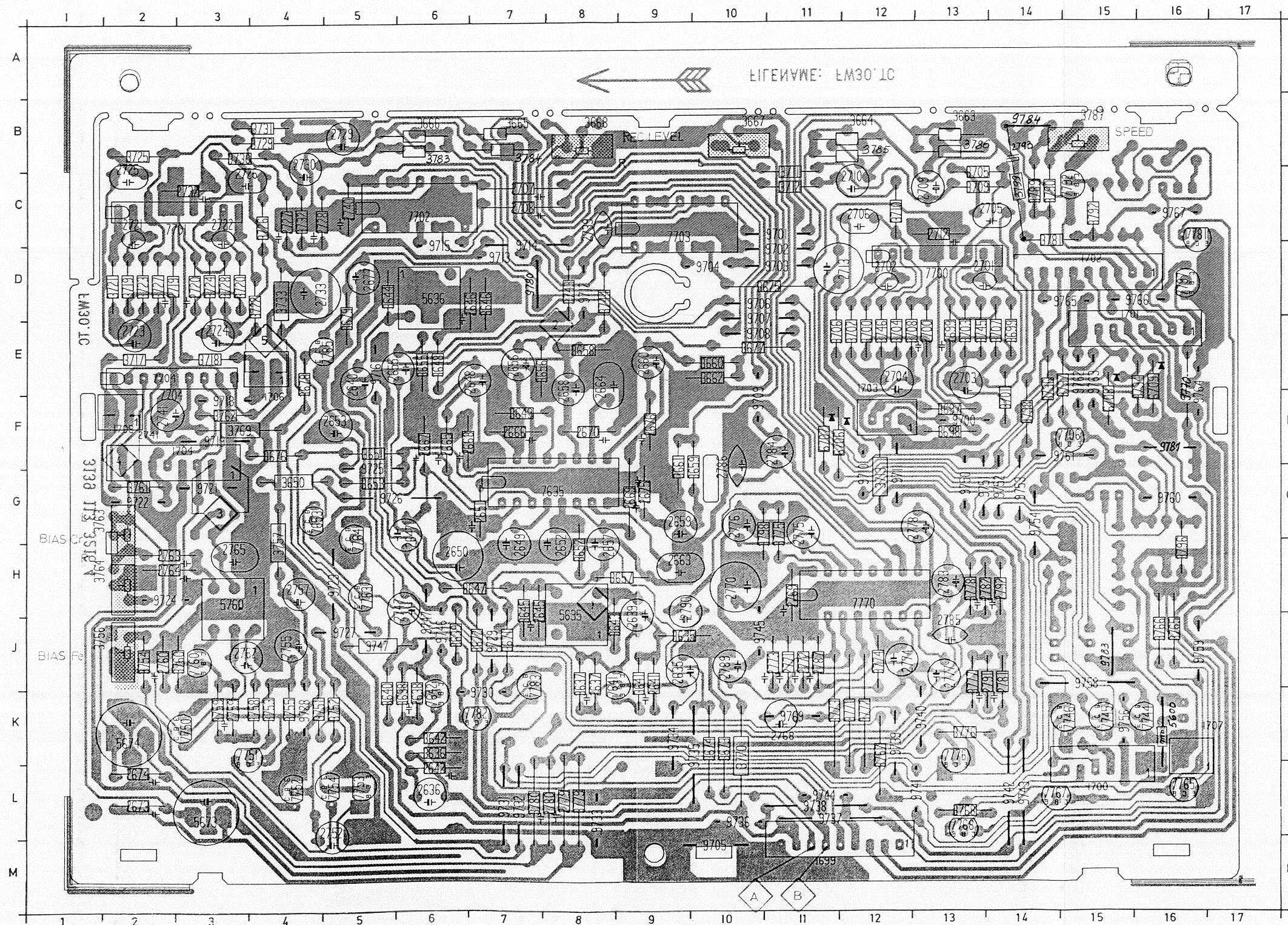
- 1) For Azimuth adjustment set needs not to be dismantled. Remove ornamental part of cassette door and put screwdriver (torx5) through holes of cassette door.
- 2) Pot. on motor has to be preadjusted to *min. speed* first (turn pot ccw to stop position). Difference between Deck A and Deck B has to be ≤2%.
- 3) Insert SBC419 or SBC420 in B-Deck and use *High speed dubbing* mode to check frequency.
- 4) Check *Pb level*, *Frequency Response* and *Distortion* after recording: 300mV ± 1dB, D ≤3% - otherwise readjust record current, respectively bias current.
- 5) Values in parenthesis are measured with DIN level cassette.

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|-----|------|----|------|-----|------|-----|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|
| 1699 | M11 | 2647 | G6 | 2665 | F6 | 2705 | C14 | 2728 | C4 | 2768 | K11 | 2785 | J13 | 3644 | D5 | 3662 | E10 | 3699 | E14 | 3719 | D2 | 3736 | E14 | 3757 | H4 | 3774 |
| 1701 | D15 | 2648 | F7 | 2666 | F7 | 2706 | C12 | 2729 | B5 | 2769 | H11 | 2786 | G10 | 3645 | J7 | 3663 | B13 | 3700 | E12 | 3720 | D3 | 3737 | E15 | 3758 | K4 | 3775 |
| 1702 | D15 | 2649 | H7 | 2667 | F6 | 2707 | C7 | 2730 | B4 | 2770 | H10 | 2787 | J11 | 3646 | D7 | 3664 | B12 | 3701 | F14 | 3721 | D2 | 3738 | F14 | 3759 | K3 | 3776 |
| 1703 | E12 | 2650 | H6 | 2668 | F6 | 2708 | C7 | 2732 | B3 | 2771 | J11 | 2788 | G10 | 3647 | H6 | 3665 | B7 | 3702 | E12 | 3722 | D4 | | H15 | 3760 | J2 | 3777 |
| 1704 | F3 | 2651 | G7 | 2669 | G9 | 2709 | C13 | 2733 | D4 | 2772 | J11 | 2789 | J10 | 3648 | E6 | 3666 | B6 | 3703 | E13 | 3723 | D2 | | H14 | 3761 | G2 | 3778 |
| 1706 | F4 | 2652 | H8 | 2670 | F8 | 2710 | C12 | 2739 | C8 | 2773 | J11 | 2790 | H9 | 3649 | F7 | 3667 | B10 | 3704 | E12 | 3724 | D3 | | H15 | 3762 | F3 | 3779 |
| 1708 | F2 | 2653 | F5 | 2673 | L2 | 2712 | C13 | 2740 | C5 | 2774 | J12 | 2791 | J13 | 3650 | G4 | 3668 | B8 | 3705 | C13 | 3725 | B2 | 3743 | D8 | 3763 | H1 | 3780 |
| 2635 | J9 | 2655 | E6 | 2674 | L2 | 2713 | D12 | 2741 | F2 | 2775 | G11 | 2792 | H14 | 3651 | F5 | 3671 | J7 | 3706 | E11 | 3726 | C4 | 3744 | D8 | 3764 | H1 | 3781 |
| 2636 | L6 | 2656 | E7 | 2675 | G9 | 2719 | D2 | 2752 | L5 | 2776 | G10 | 3635 | J9 | 3652 | H8 | 3672 | J7 | 3707 | E14 | 3727 | D2 | 3745 | E13 | 3765 | J16 | 3783 |
| 2637 | J8 | 2657 | H8 | 2676 | F9 | 2720 | D3 | 2755 | J4 | 2777 | J13 | 3636 | K6 | 3653 | G5 | 3673 | K10 | 3708 | E12 | 3728 | D3 | 3746 | E12 | 3766 | J16 | 3784 |
| 2638 | K6 | 2658 | F8 | 2677 | D5 | 2721 | C2 | 2757 | H4 | 2778 | G13 | 3637 | J8 | 3655 | E6 | 3674 | K10 | 3709 | C13 | 3729 | B4 | 3747 | J5 | 3767 | K12 | 3785 |
| 2639 | J9 | 2659 | G9 | 2699 | E13 | 2722 | C3 | 2759 | K3 | 2779 | L8 | 3638 | K6 | 3656 | E7 | 3675 | D11 | 3710 | C12 | 3730 | B3 | 3751 | K4 | 3768 | L13 | 3786 |
| 2640 | E5 | 2660 | E9 | 2700 | E13 | 2723 | E2 | 2760 | J2 | 2780 | L8 | 3639 | J6 | 3657 | H9 | 3676 | F4 | 3711 | C11 | 3731 | B4 | 3752 | K5 | 3769 | F3 | 3787 |
| 2641 | J9 | | | 2701 | D13 | 2724 | E3 | 2762 | J3 | 2781 | J14 | 3640 | K5 | 3658 | E8 | 3677 | E10 | 3712 | C11 | 3732 | C4 | 3753 | K4 | 3770 | K10 | |
| 2642 | L6 | | | 2702 | D12 | 2725 | B2 | 2763 | H2 | 2782 | H13 | 3641 | J9 | 3659 | G9 | 3678 | E4 | 3713 | G12 | 3733 | D4 | 3754 | J2 | 3771 | K12 | 3789 |
| 2645 | J7 | 2663 | H9 | 2703 | E13 | 2726 | B3 | 2764 | H2 | 2783 | H13 | 3642 | K6 | 3660 | E10 | 3697 | F13 | 3717 | E2 | 3734 | E15 | 3755 | K4 | 3772 | K12 | 3790 |
| 2646 | D6 | 2664 | F8 | 2704 | E12 | 2727 | C4 | 2765 | H3 | 2784 | F11 | 3643 | J8 | 3661 | G9 | 3698 | F13 | 3718 | E3 | | | 3756 | J1 | 3773 | K11 | |

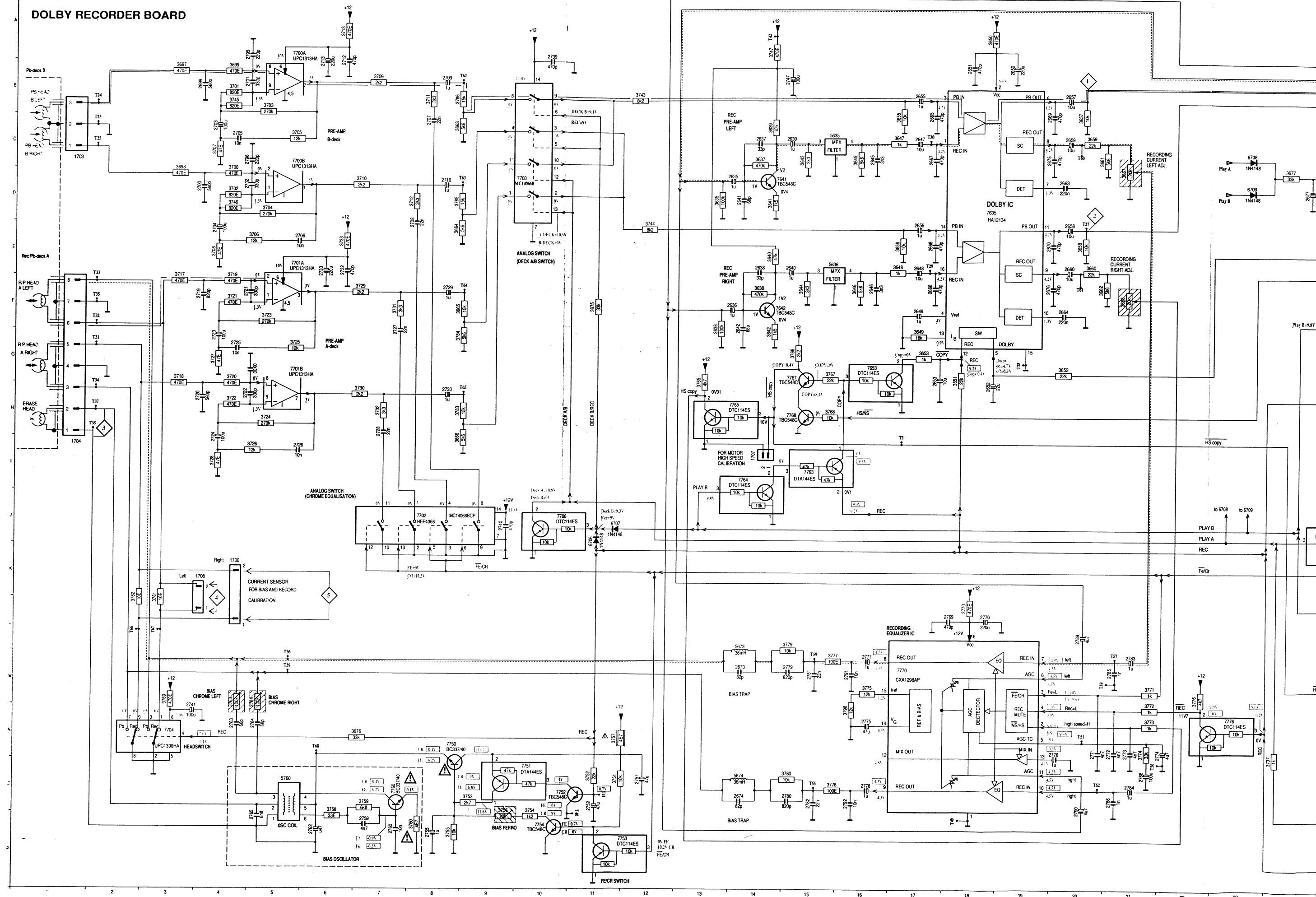


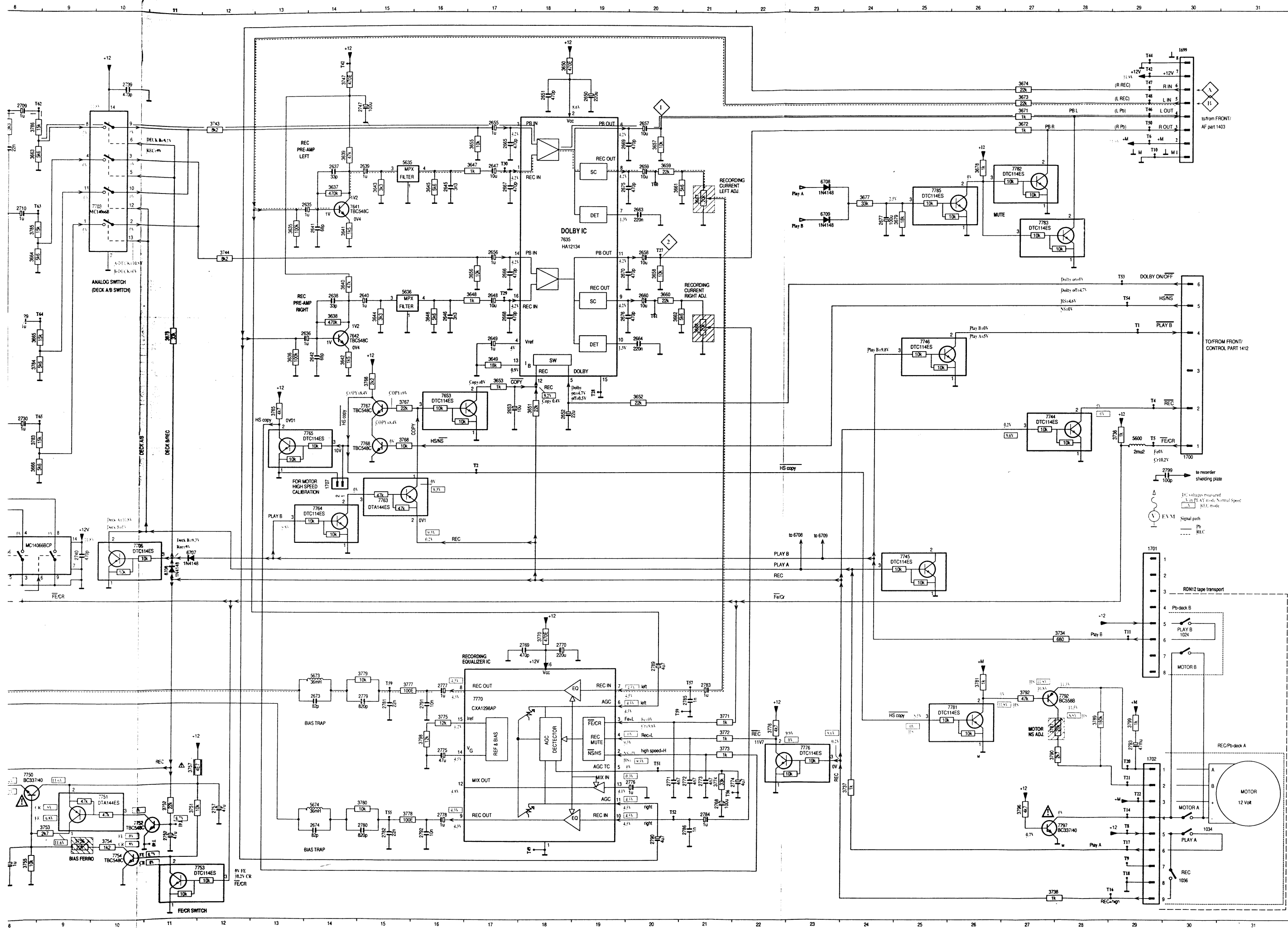
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|------|-----|------|----|------|-----|------|-----|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|------|------|-----|
| 1699 | M11 | 2647 | G6 | 2665 | F6 | 2705 | C14 | 2728 | C4 | 2768 | K11 | 2785 | J13 | 3644 | D5 | 3662 | E10 | 3699 | E14 | 3719 | D2 | 3736 | E14 | 3757 | H4 | 3774 | J12 | 3792 | C15 | | | 7746 | K15 | | | 9711 | G12 | 9728 | K4 | 9745 | J10 | 9764 | F16 |
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| 1703 | E12 | 2650 | H6 | 2668 | F6 | 2708 | C7 | 2732 | B3 | 2771 | J11 | 2788 | G10 | 3647 | H6 | 3665 | B7 | 3702 | E12 | 3722 | D4 | | H15 | 3760 | J2 | 3777 | J13 | 3796 | H16 | 7642 | K6 | 7752 | L4 | | | 9714 | C7 | 9731 | L7 | 9750 | G13 | 9767 | C16 |
| 1704 | F3 | 2651 | G7 | 2669 | G9 | 2709 | C13 | 2733 | D4 | 2772 | J11 | 2789 | J10 | 3648 | E6 | 3666 | B6 | 3703 | E13 | 3723 | D2 | | H14 | 3761 | G2 | 3778 | H13 | 5600 | K16 | 7653 | G4 | 7753 | L5 | | | 9715 | C6 | 9732 | L7 | 9751 | G13 | | |
| 1706 | F4 | 2652 | H8 | 2670 | F8 | 2710 | C12 | 2739 | C8 | 2773 | J11 | 2790 | H9 | 3649 | F7 | 3667 | B10 | 3704 | E12 | 3724 | D3 | | H15 | 3762 | F3 | 3779 | H8 | | | 7635 | J8 | 7750 | D13 | 7797 | D16 | 9716 | E5 | 9733 | L8 | 9752 | G14 | 9769 | K11 |
| 1708 | F2 | 2653 | F5 | 2673 | L2 | 2712 | C13 | 2740 | C5 | 2774 | J12 | 2791 | J13 | 3650 | G4 | 3668 | B8 | 3705 | C13 | 3725 | B2 | 3743 | D8 | 3763 | H1 | 3780 | L7 | 5636 | D6 | 7701 | C2 | 7760 | J3 | 9700 | F13 | | | 9734 | K9 | 9753 | G14 | 9770 | F16 |
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| 2639 | J9 | 2659 | G9 | 2699 | E13 | 2722 | C3 | 2759 | K3 | 2779 | L8 | 3638 | K6 | 3656 | E7 | 3675 | D11 | 3710 | C12 | 3730 | B3 | 3751 | K4 | 3768 | L13 | 3786 | B13 | 6707 | F11 | | | 7768 | L13 | 9705 | D10 | 9722 | G2 | 9739 | K12 | 9758 | J15 | | |
| 2640 | E5 | 2660 | E9 | | | 2700 | E13 | 2723 | E2 | 2760 | J2 | 2780 | L8 | 3639 | J6 | 3657 | H9 | 3676 | F4 | 3711 | C11 | 3731 | B4 | 3752 | K5 | 3769 | F3 | 3787 | B15 | | | 7770 | H12 | 9706 | D10 | 9723 | H5 | 9740 | K13 | 9759 | J16 | 9780 | D7 |
| 2641 | J9 | | | 2701 | D13 | 2724 | E3 | 2762 | J3 | 2781 | J14 | 3640 | K5 | 3658 | E8 | 3677 | E10 | 3712 | C11 | 3732 | C4 | 3753 | K4 | 3770 | K10 | | | | | | | 7776 | K13 | 9707 | D10 | 9724 | H2 | 9741 | L13 | 9760 | G16 | 9781 | F16 |
| 2642 | L6 | | | 2702 | D12 | 2725 | B2 | 2763 | H2 | 2782 | H13 | 3641 | J9 | 3659 | G9 | 3678 | E4 | 3713 | G2 | 3733 | D4 | 3754 | J2 | 3771 | K12 | 3789 | C14 | | | | | 7781 | C16 | 9708 | E10 | 9725 | G5 | 9742 | L14 | 9761 | F15 | | |
| 2645 | J7 | 2663 | H9 | 2703 | E13 | 2726 | B3 | 2764 | H2 | 2783 | H13 | 3642 | K6 | 3660 | E10 | 3697 | F13 | 3717 | E2 | 3734 | E15 | 3755 | K4 | 3772 | K12 | 3790 | C14 | | | 7744 | K16 | 7782 | K7 | 9709 | F10 | 9726 | G5 | 9743 | L14 | 9762 | E15 | 9783 | J15 |
| 2646 | D6 | 2664 | F8 | 2704 | E12 | 2727 | C4 | 2765 | H3 | 2784 | F11 | 3643 | J8 | 3661 | G9 | 3698 | F13 | 3718 | E3 | | | 3756 | J1 | 3773 | K11 | | | | | 7745 | K15 | 7783 | K7 | 9710 | G12 | 9727 | J5 | 9744 | L11 | 9763 | E15 | 9784 | B14 |

Deck B has to be $\leq 2\%$.



DOLBY RECORDER BOARD

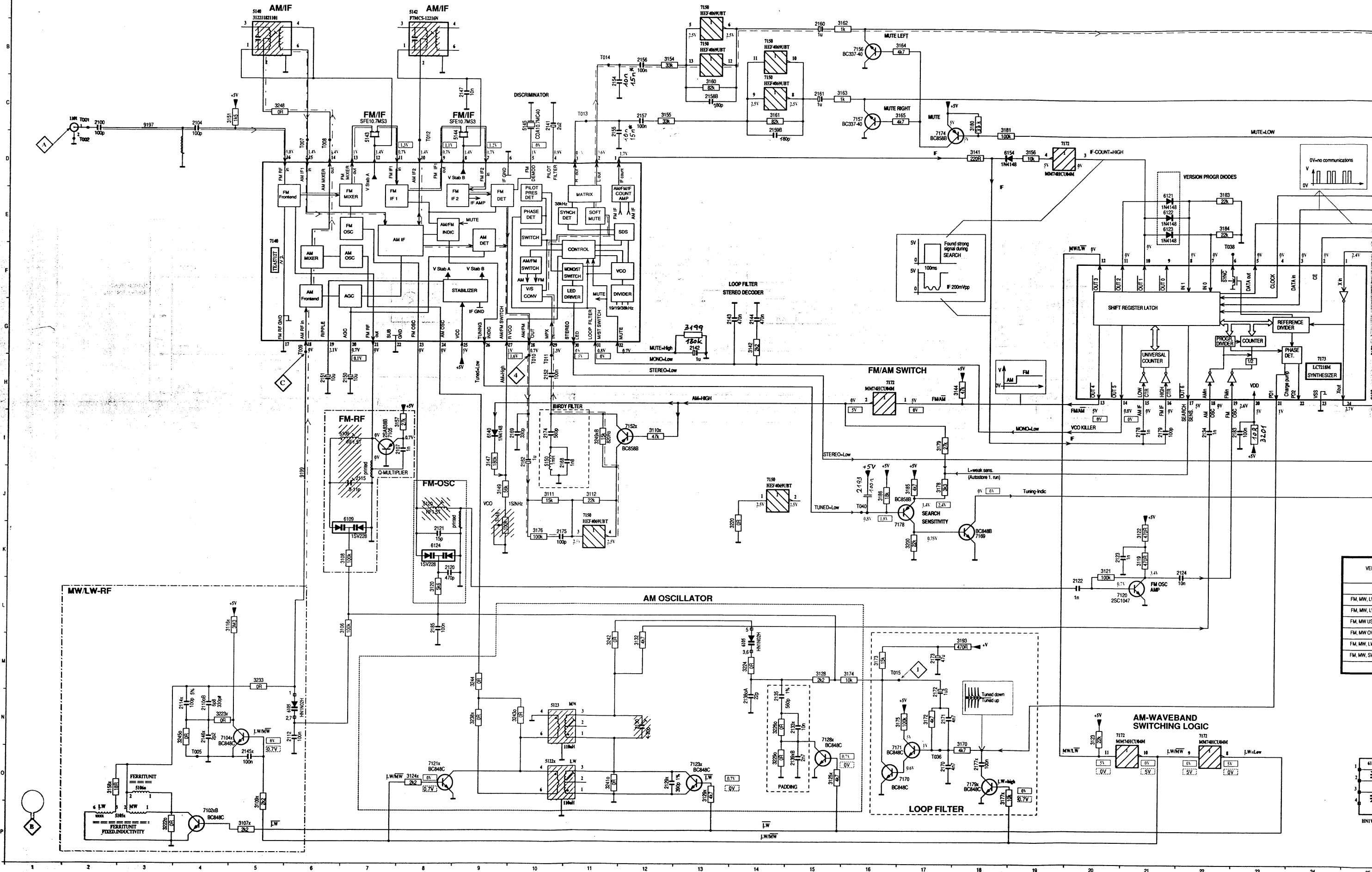




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| 1704 I1 | 3729 F7 |
| 1706 K4 | 3730 H7 |
| 1707 H4 | 3731 F7 |
| 1708 K3 | 3732 H7 |
| 2635 D13 | 3733 E6 |
| 2636 F13 | 3734 L28 |
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| 2646 F16 | 3747 A14 |
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| 2648 E17 | 3752 O11 |
| 2649 F17 | 3753 D9 |
| 2650 B19 | 3754 O10 |
| 2651 B18 | 3755 P8 |
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| 2653 G17 | 3757 N11 |
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| 2656 E17 | 3759 O7 |
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| 2658 E20 | 3761 L3 |
| 2659 C20 | 3762 L2 |
| 2660 E20 | 3763 M4 |
| 2663 D20 | 3764 M5 |
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| 2665 C17 | 3766 G15 |
| 2666 E17 | 3767 G15 |
| 2667 C17 | 3768 H15 |
| 2668 F17 | 3769 M3 |
| 2669 C19 | 3770 N24 |
| 2670 E19 | 3771 M21 |
| 2673 M14 | 3772 M21 |
| 2674 O14 | 3773 N21 |
| 2675 C19 | 3774 N21 |
| 2676 F19 | 3775 M16 |
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| 2700 D4 | 3778 O15 |
| 2701 B1 | 3779 L15 |
| 2702 D4 | 3780 O15 |
| 2703 C4 | 3781 M26 |
| 2704 E4 | 3782 M8 |
| 2705 C4 | 3784 G8 |
| 2706 E5 | 3785 D8 |
| 2707 C3 | 3786 D8 |
| 2708 E8 | 3787 M27 |
| 2709 B8 | 3788 M28 |
| 2710 D8 | 3789 M27 |
| 2712 B8 | 3792 M27 |
| 2713 B8 | 3796 O27 |
| 2719 F4 | 3798 M16 |
| 2720 H4 | 3799 M29 |
| 2721 F4 | 5600 O29 |
| 2722 H4 | 5601 O29 |
| 2723 G4 | 5602 O29 |
| 2724 I4 | 5603 I4 |
| 2725 G4 | 5604 O14 |
| 2726 I5 | 5760 O5 |
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| 2728 H7 | 6707 J11 |
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| 2730 H8 | 6709 D23 |
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| 2733 E6 | 7642 F14 |
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| 3662 F20 | |
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| 3711 B8 | |
| 3712 D8 | |
| 3713 A6 | |
| 3717 F3 | |
| 3718 G3 | |
| 3719 F4 | |
| 3720 G4 | |
| 3721 F4 | |
| 3722 H4 | |

TUNER UNIT ECO4

(MIDI)



VER

FM, MW, LW
FM, MW, LW
FM, MW, LW
FM, MW, LW
FM, MW, LW
FM, MW, LW
FM, MW, LW

410

BN1V1



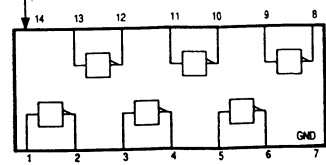
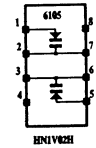
SIGNAL...PATH

| | |
|-----------|----|
| ————— | FM |
| - - - - - | AM |
| - - - - - | AF |

..... Visual Modulated stereo
..... Visual MW/stereo
..... VHF
..... Visual W/stereo

collages, translated. What is, is turned to a story transmission.

- o for 2-band version only
- x for LW version only
- * for USA version only



| | | | | | | | | | | | |
|-----------|-----------|-----------|-----------|-----------|----------|-----------|-----------|-----------|-----------|----------|----------|
| 2107 B 2 | 2144 C 3 | 2171 B 5 | 3110x C 3 | 3147 B 3 | 3175 B 5 | 3212 C 4 | 3238x A 5 | 6109 B 1 | 7171 B 5 | T010 C 3 | T028 E 5 |
| 2110x A 3 | 2145x A 3 | 2174 C 3 | 3111 D 3 | 3149 C 2 | 3176 C 3 | 3213 D 4 | 3240 D 5 | 6124 B 2 | 7172 C 4 | T011 C 3 | T029 D 5 |
| 2112 B 3 | 2146x A 3 | 2175 D 3 | 3112 D 3 | 3154 D 2 | 3178 C 5 | 3220 D 2 | 3241x A 5 | 7102x A 3 | 7173 C 5 | T012 C 2 | T030 D 5 |
| 2114x A 3 | 2147 C 2 | 2180 C 5 | 3116x A 3 | 3155 D 2 | 3179 C 5 | 3222x A 3 | 3242 B 4 | 7104x A 3 | 7174 D 4 | T013 D 2 | T031 E 5 |
| 2120 B 2 | 2152 C 3 | 2181 C 5 | 3121 B 3 | 3157 B 2 | 3180 D 4 | 3223x A 2 | 3243x A 5 | 7121x A 5 | 7178 C 5 | T014 D 2 | T032 E 5 |
| 2121 B 2 | 2154 C 2 | 2183 C 5 | 3122 B 3 | 3158x A 4 | 3183 D 5 | 3224 B 4 | 3244 A 4 | 7123x B 5 | 7179x A 5 | T015 B 5 | T033 D 5 |
| 2122 B 3 | 2155 C 2 | 2185 B 2 | 3123 C 4 | 3160 D 3 | 3184 D 5 | 3226x A 4 | 3245x A 3 | 7128x A 4 | T001 A 1 | T016 A 5 | T036 B 5 |
| 2123 B 3 | 2158 D 3 | 2186 D 5 | 3125x A 4 | 3161 D 3 | 3185 B 5 | 3228 C 4 | 3246 B 2 | 7140 C 2 | T002 A 1 | T020 E 4 | T038 D 5 |
| 2133x A 4 | 2159 D 3 | 3185 B 3 | 3128 B 4 | 3166 E 5 | 3186 B 4 | 3229x A 4 | 3247 B 2 | 7150 D 3 | T005 D 1 | T021 D 3 | T040 B 4 |
| 2138x B 4 | 2168 D 3 | 3187x A 5 | 3129x B 5 | 3167 D 4 | 3188 C 5 | 3233 A 3 | 3248 D 1 | 7152x D 3 | T007 C 2 | T022 D 4 | |
| 2139x A 4 | 2169 C 3 | 3188 B 1 | 3142 C 4 | 3171 D 5 | 3200 B 5 | 3235 C 5 | 3249x C 3 | 7169 C 5 | T008 D 1 | T023 D 4 | |
| 2143 C 3 | 2178 C 5 | 3189x A 5 | 3144 C 5 | 3172 B 5 | 3211 B 5 | 3237 B 4 | 6105 B 3 | 7170 B 5 | T009 B 2 | T027 E 5 | |

5

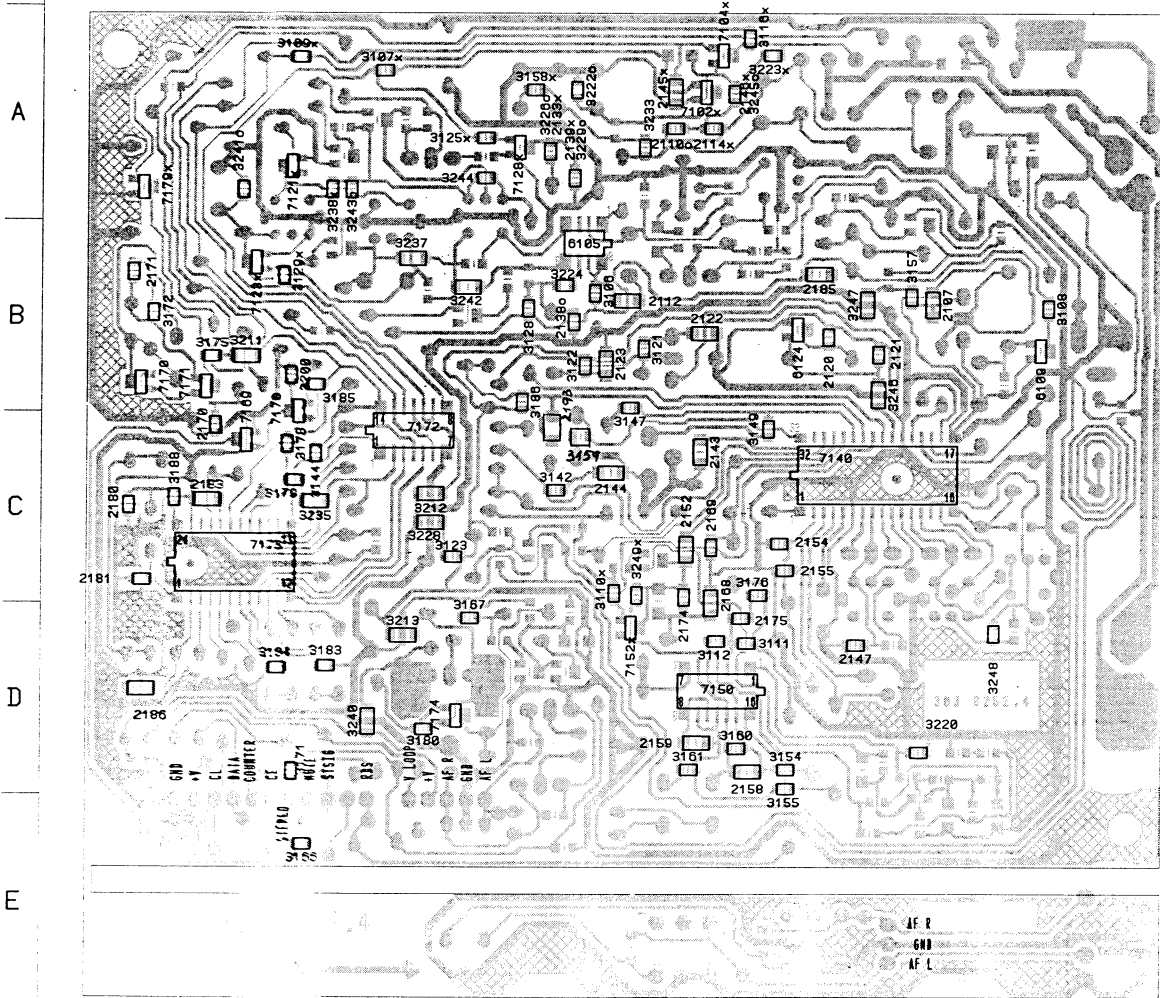
4

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ECO 4 TUNER BOARD / Copper side view



o for 2-band vers on only
x for LW version only
* for USA version only

5

4

3

2

1

| | | | | | | | | | | |
|-----------|----------|-----------|-----------|-----------|-----------|-----------|----------|----------|----------|----------|
| 1101 A 1 | 2134 C 5 | 2161 E 3 | 3120 B 2 | 3164 D 4 | 3191 D 5 | 5120 B 3 | 5170 C 5 | 7120 B 3 | 9108 D 3 | 9126 A 3 |
| 1153 E 4 | 2135 B 4 | 2162 C 3 | 3124x A 5 | 3165 D 4 | 3192 D 5 | 5122x A 5 | 5171 C 4 | 7156 D 4 | 9110 E 4 | 9128 D 3 |
| 1173 E 5 | 2141 D 2 | 2172 B 5 | 3132 B 5 | 3170 C 5 | 3193 D 5 | 5123 B 4 | 6121 D 5 | 7157 D 4 | 9115 C 5 | 9129 C 4 |
| 2100 A 1 | 2142 C 3 | 2173 C 5 | 3141 C 3 | 3173 B 5 | 3194 D 4 | 5140 C 2 | 6122 D 5 | 9100 E 5 | 9119 B 5 | 9130 C 3 |
| 2104 C 1 | 2150 C 1 | 2177x B 5 | 3148 C 3 | 3174 B 5 | 3195 D 4 | 5142 C 2 | 6123 D 5 | 9101 E 5 | 9120 B 2 | 9132 C 3 |
| 2115 B 1 | 2151 C 1 | 2178 C 4 | 3151 C 1 | 3177x A 5 | 3197 D 4 | 5143 C 2 | 6140 C 3 | 9103 C 5 | 9122 B 3 | 9134 B 2 |
| 2124 B 4 | 2150 D 2 | 2179 C 4 | 3150 C 4 | 3181 D 5 | 5105x A 4 | 5144 C 2 | 6154 C 4 | 9105 B 4 | 9123 C 4 | 9197 C 1 |
| 2129x B 5 | 2157 D 2 | 2184 D 5 | 3162 E 4 | 3189 D 5 | 5106x A 4 | 5145 D 2 | 6174 D 4 | 9106 B 4 | 9124 E 1 | 9199 A 2 |
| 2130 B 4 | 2100 E 3 | 3119 B 3 | 3163 E 4 | 3190 D 5 | 5109 B 1 | 5150 D 3 | 7105 B 1 | 9107 B 4 | 9125 B 2 | |

1

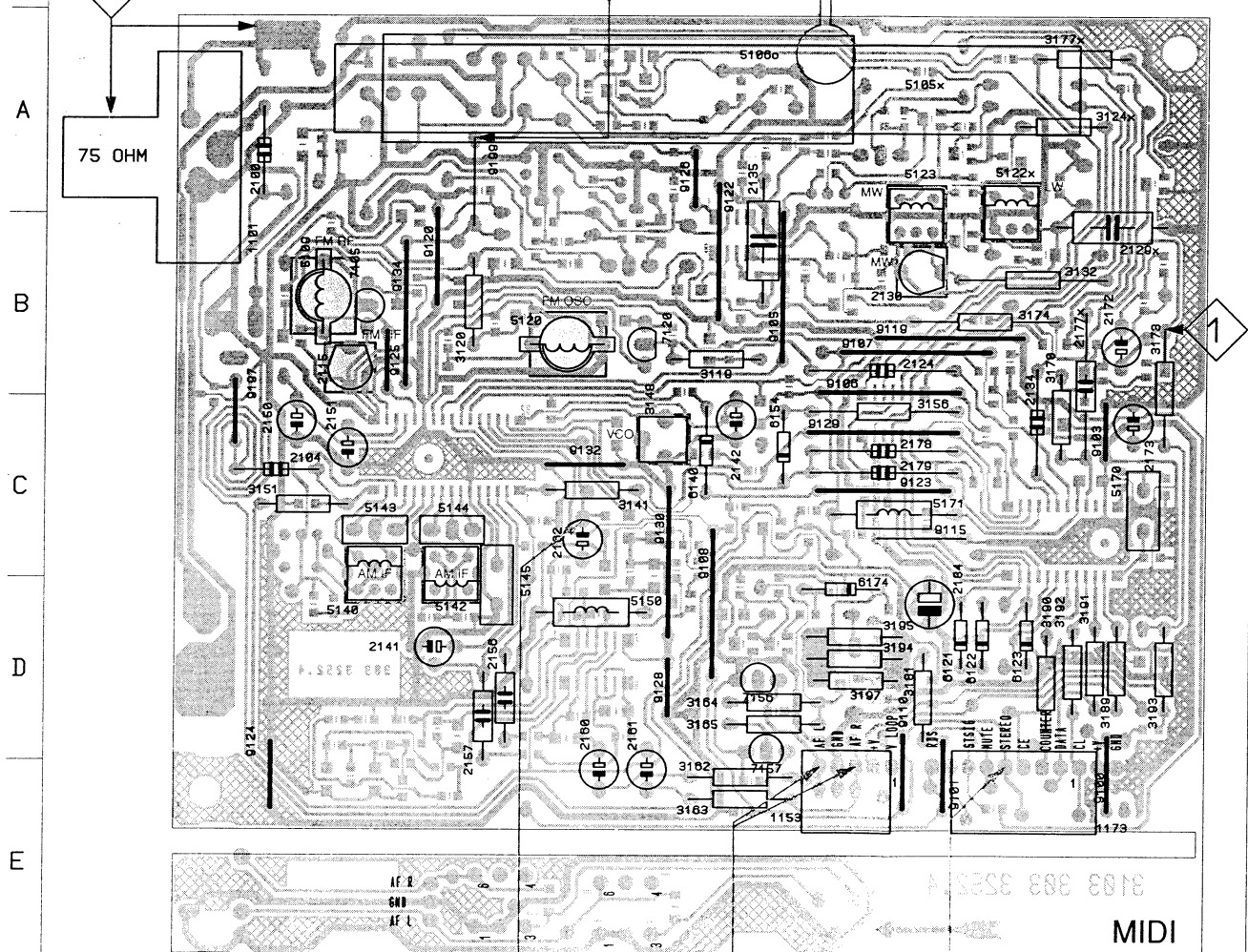
2

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ECO 4 TUNER BOARD / Component side view



o for 2-band version only
x for LW version only
* for USA version only

1

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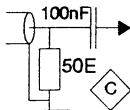
5

TUNER Adjustme

| Waverange |
|----------------------------|
| VARICAP ALIGNMEN |
| FM /00/01/05/10/17 |
| 87.5 - 108MHz |
| FM /14 East Europe |
| 65.81 - 108MHz |
| MW /01/17 |
| 2-band version, 10kHz grid |
| 530 - 1710kHz |
| LW /00/05/10/14 |
| 153 - 279kHz |
| MW /00/05/10/14 |
| 522 - 1611kHz |
| FM - RF |
| FM /00/01/05/10/17 |
| FM /14 East Europe |
| VCO |
| FM |
| AM - IF |
| MW |
| AM - RF |
| LW |
| MW /00/05/10/14 |
| 3-band version |
| MW /01/17 |
| 2-band version |

* Use Service Test Prog
1) Adjustment of AM-RF
brackets after AM-RF
repeat

TUNER Adjustment table (ECO 4 FM/MW- and FM/MW/LW - versions with AM-ferrite antenna)

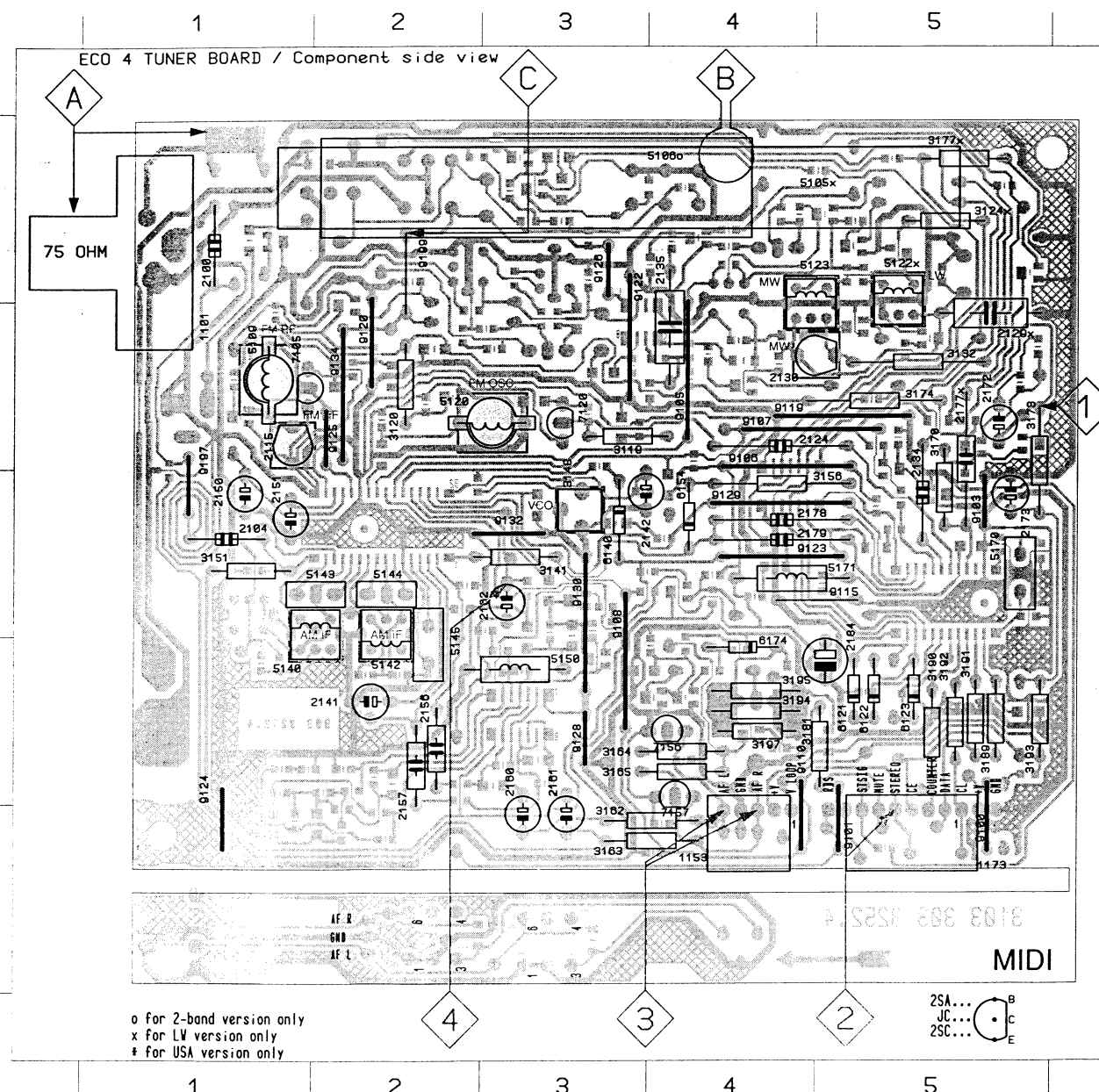
| Waverange | Input frequency | Input | Set tuned to | Adjust | Output | Scope / Voltmeter |
|--|--|---|--------------|--------------|--------|----------------------------------|
| VARICAP ALIGNMENT * 1) | | | | | | |
| FM /00/01/05/10/17 87.5 - 108MHz | | | 108 MHz | 5120 | 1 | 8V ± 0.2V |
| | | | 87.5MHz | check | | 4.1V ± 0.5V |
| FM /14 East Europe 65.81 - 108MHz | | | 108 MHz | 5120 | | 8V ± 0.2V |
| | | | 65.81 MHz | check | | 0.8V ± 0.4V |
| MW /01/17 2-band version, 10kHz grid 530 - 1710kHz | | | 1710kHz | 5123 | | 9V±0.1V (7.5±0.7V) ¹⁾ |
| | | | 530kHz | check | | 1V±0.4V (1.1±0.5V) ¹⁾ |
| LW /00/05/10/14 153 - 279kHz | | | 279kHz | 5122 | | 8V±0.2V (7.5±1.5V) ¹⁾ |
| | | | 153kHz | check | | 1V±0.4V (1.1±0.5V) ¹⁾ |
| MW /00/05/10/14 522 - 1611kHz | | | 1611kHz | 5123 | | 8V±0.1V (7.5±0.5V) ¹⁾ |
| | | | 522kHz | check | | 1V±0.4V (1.1±0.5V) ¹⁾ |
| FM - RF | | | | | | |
| FM /00/01/05/10/17 | 108MHz | A mod=1kHz Δf=22.5kHz | 108MHz | 2115 | 3 | MAX ↕ |
| | 87.5MHz | | 87.5MHz | 5109 | | |
| FM /14 East Europe | 108MHz | | 108MHz | 2115 | | |
| | 65.81MHz | | 65.81MHz | 5109 | | |
| VCO | | | | | | |
| FM | 98 MHz, 1mV continuous wave | A | 98MHz | 3148 | 2 | 152kHz ± 1kHz |
| AM - IF | | | | | | |
| MW | 540kHz Δf = 10kHz as low as possible |  | 540kHz | 5142 5140 | 4 | symmetrical and max height |
| AM - RF | | | | | | |
| LW | 198kHz | B mod=1kHz 30% AM | 198kHz | 5122 | 4 | MAX |
| MW /00/05/10/14 3-band version | 1494kHz | | 1494kHz | 2130 | | MAX ↕ |
| | 549kHz | | 549kHz | 5123 | | |
| MW /01/17 2-band version | 1500kHz | | 1500kHz | 2130 | | |
| | 550kHz | | 550kHz | 5123 | | |

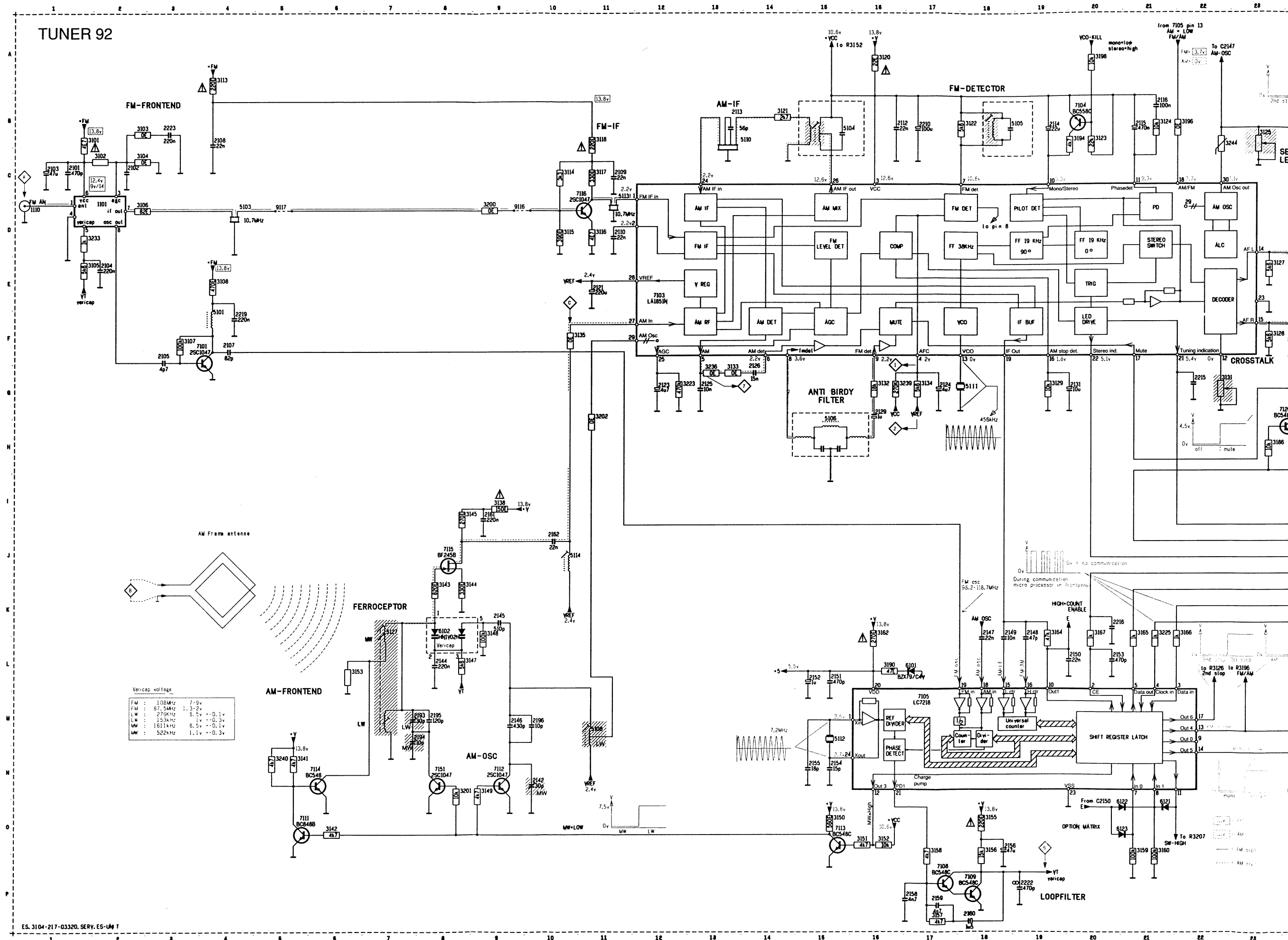
* Use Service Test Program. By selecting the TUNER TEST, test frequencies will be stored as preset frequ. automatically.

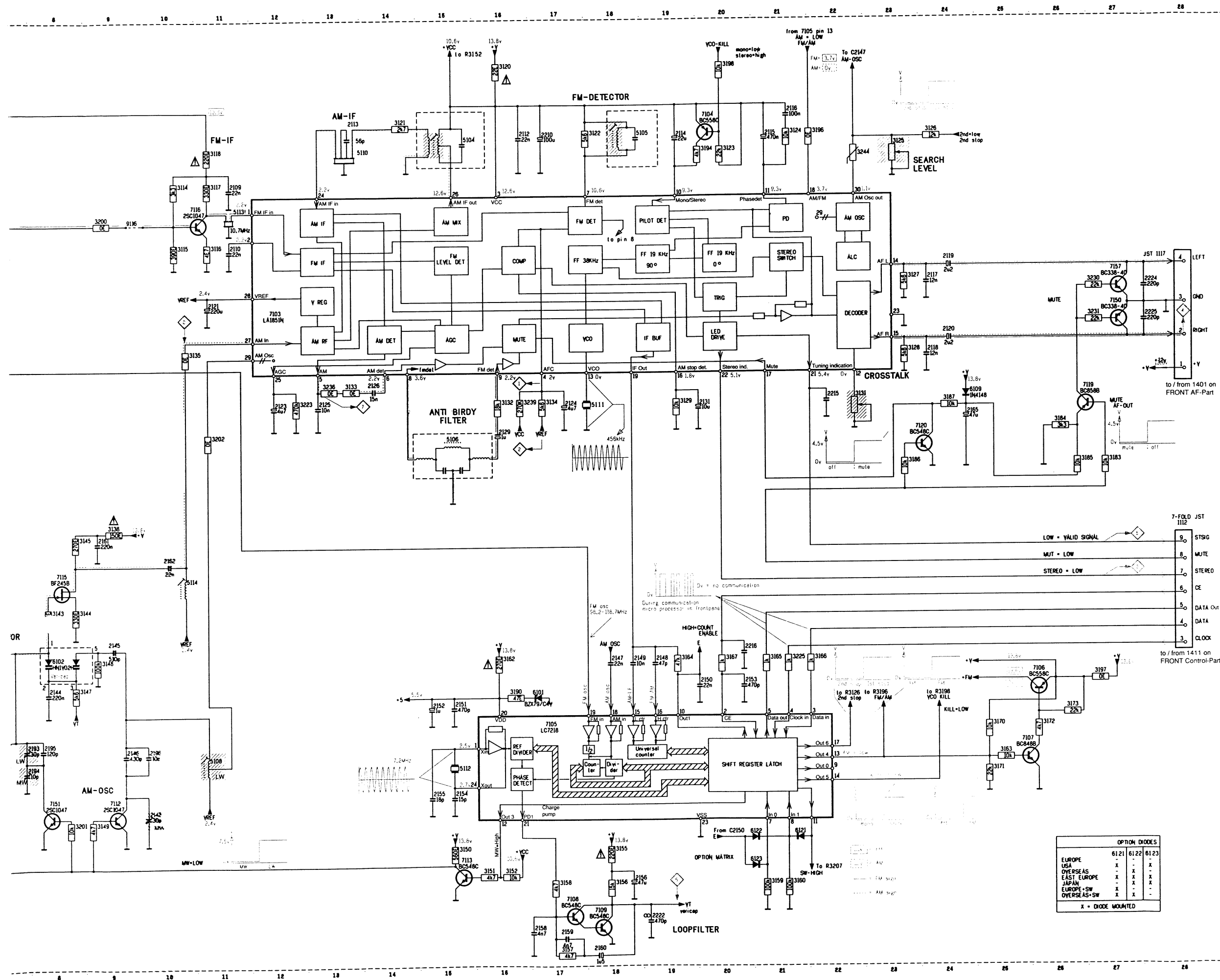
1) Adjustment of AM-RF stage influences the varicap voltage. Therefore check if varicap voltage fulfils value stated within brackets after AM-RF adjustment.

↑ repeat

| | | | | | | | | | | |
|----------|----------|----------|-----------|----------|----------|-----------|----------|----------|----------|----------|
| 1101 A 1 | 2134 C 5 | 2161 E 3 | 3120 B 2 | 3164 D 4 | 3191 D 5 | 5120 B 3 | 5170 C 5 | 7120 B 3 | 9108 D 3 | 9126 A 3 |
| 1153 E 4 | 2135 B 4 | 2162 C 3 | 3124x A 5 | 3165 D 4 | 3192 D 5 | 5122x A 5 | 5171 C 4 | 7156 D 4 | 9110 E 4 | 9128 D 3 |
| 2 | T030 D 5 | | | | | | | | | |
| 2 | T031 E 5 | | | | | | | | | |
| 2 | T032 E 5 | | | | | | | | | |
| 5 | T033 D 5 | | | | | | | | | |
| 5 | T036 B 5 | | | | | | | | | |
| 3 | T039 D 5 | | | | | | | | | |
| 3 | T040 B 4 | | | | | | | | | |
| 4 | | | | | | | | | | |
| 5 | | | | | | | | | | |



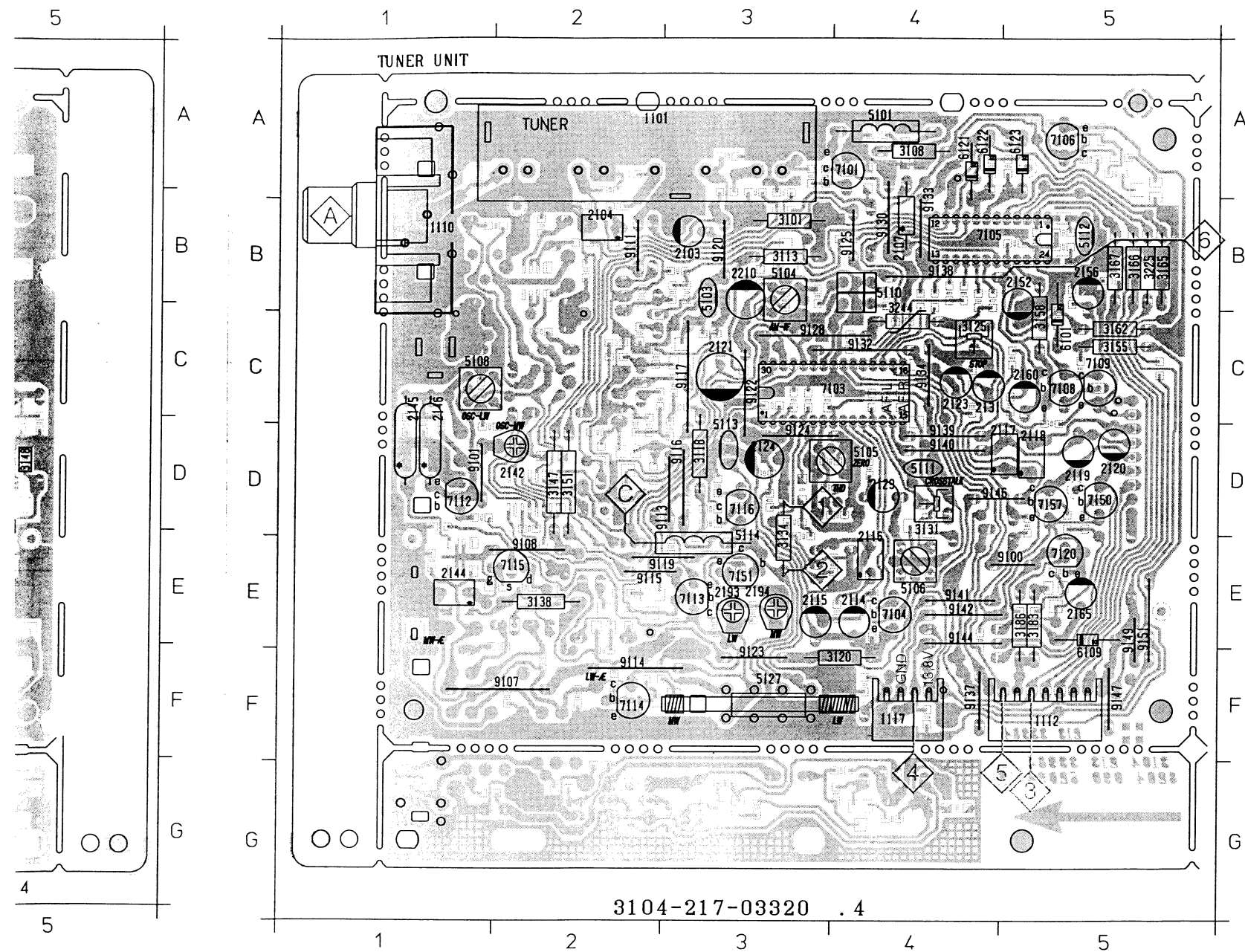




| | |
|----------|----------|
| 1101 02 | 5104 B15 |
| 2101 C1 | 5105 B18 |
| 2102 C2 | 5106 M15 |
| 2103 C1 | 5111 018 |
| 2104 E2 | 5111 018 |
| 2105 F3 | 5112 M15 |
| 2107 F4 | 5127 K7 |
| 2108 B4 | 6101 L17 |
| 2109 C11 | 6102 K8 |
| 2110 011 | 6109 G24 |
| 2112 B16 | 6121 021 |
| 2113 B13 | 6122 021 |
| 2114 B19 | 6123 021 |
| 2115 B21 | 7101 F4 |
| 2116 B21 | 7103 E12 |
| 2117 E24 | 7104 B20 |
| 2118 F24 | 7105 M17 |
| 2119 G24 | 7106 L26 |
| 2120 F24 | 7107 H25 |
| 2121 E11 | 7108 P17 |
| 2123 G12 | 7109 P18 |
| 2124 G17 | 7111 05 |
| 2125 G13 | 7112 M9 |
| 2126 G14 | 7113 015 |
| 2129 G16 | 7114 M6 |
| 2131 G20 | 7115 J8 |
| 2141 K7 | 7116 C11 |
| 2142 M10 | 7119 G27 |
| 2144 L8 | 7120 G24 |
| 2145 K9 | 7150 E27 |
| 2146 M9 | 7151 M6 |
| 2147 K18 | 7157 E27 |
| 2148 K19 | 9116 09 |
| 2149 K18 | 9117 05 |
| 2150 L20 | |
| 2151 L15 | |
| 2152 L15 | |
| 2153 L20 | |
| 2154 M15 | |
| 2155 M15 | |
| 2156 018 | |
| 2158 P17 | |
| 2159 P17 | |
| 2160 P18 | |
| 2161 19 | |
| 2162 J10 | |
| 2165 G24 | |
| 2193 M7 | |
| 2194 M7 | |
| 2195 M8 | |
| 2196 M10 | |
| 2197 M10 | |
| 2210 B17 | |
| 2215 G22 | |
| 2216 K20 | |
| 2219 F4 | |
| 2221 G12 | |
| 2222 P19 | |
| 2223 B3 | |
| 2224 E28 | |
| 2225 E28 | |
| 3101 B1 | |
| 3102 C2 | |
| 3103 B2 | |
| 3104 C2 | |
| 3105 E1 | |
| 3106 02 | |
| 3107 F3 | |
| 3108 E4 | |
| 3113 A4 | |
| 3114 C10 | |
| 3115 010 | |
| 3116 011 | |
| 3117 C11 | |
| 3118 B11 | |
| 3120 R16 | |
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| 3122 B18 | |
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| 3126 B24 | |
| 3127 E23 | |
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| 3129 G19 | |
| 3132 G15 | |
| 3133 G13 | |
| 3134 G17 | |
| 3135 F10 | |
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| 3143 K8 | |
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| 3147 L8 | |
| 3148 K9 | |
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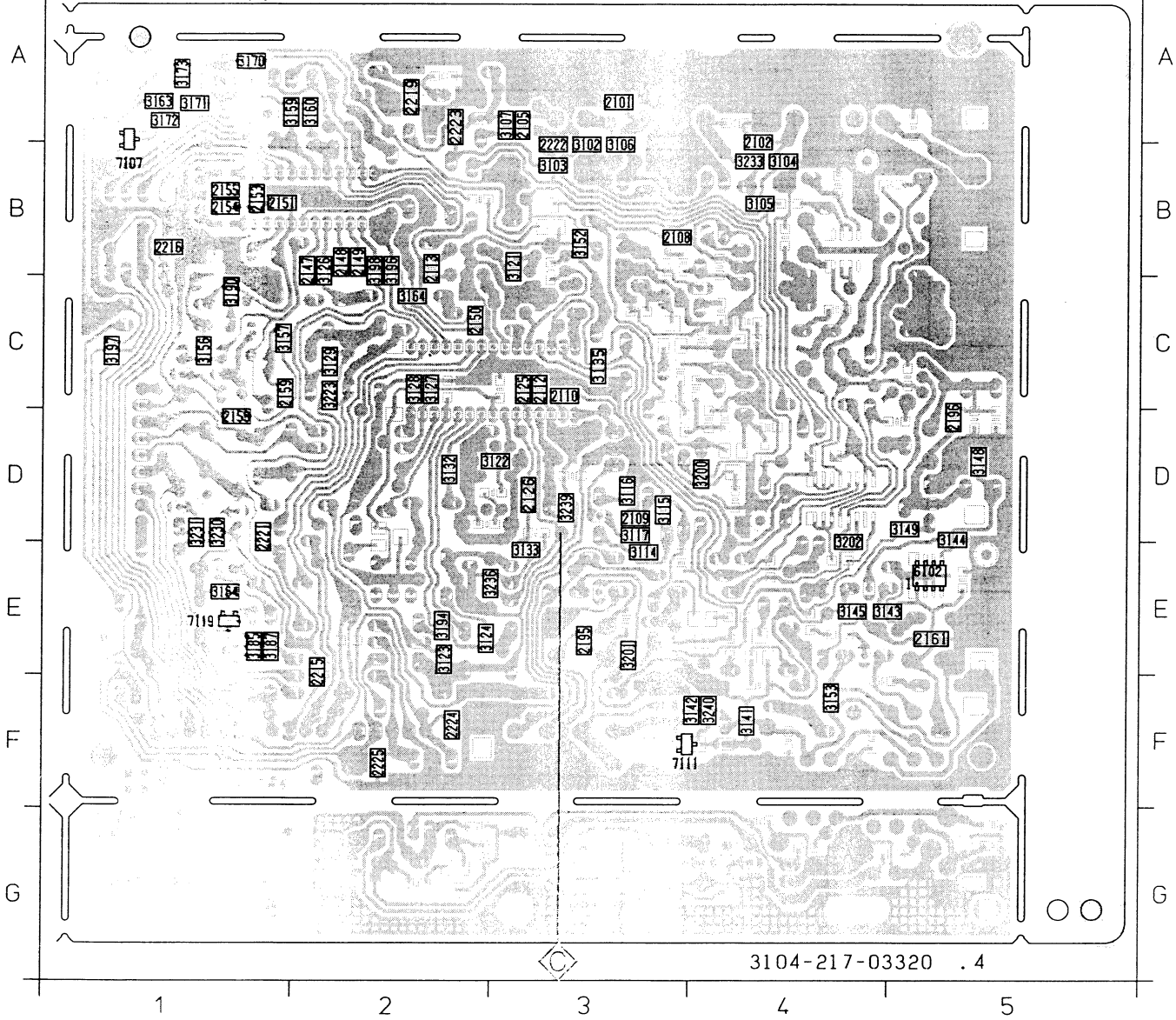
| OPTION DIODES | | | |
|-------------------|------|------|------|
| | 6121 | 6122 | 6123 |
| EUROPE | X | - | X |
| USA | - | X | - |
| OVERSEAS | - | X | - |
| EAST EUROPE | - | X | - |
| JAPAN | - | X | - |
| EUROPE-SW | X | - | - |
| OVERSEAS-SW | X | - | - |
| X = DIODE MOUNTED | | | |

| | | | | | | | | | | | |
|--------|----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 201 E3 | 3240 F4 | 1101 A2 | 2119 D5 | 2156 B5 | 3131 D4 | 3186 E5 | 5113 D3 | 7106 A5 | 9100 E5 | 9122 C3 | 9140 D4 |
| 202 E4 | 6102 E5 | 1110 B1 | 2120 D5 | 2160 C5 | 3134 D3 | 3225 B5 | 5114 E3 | 7108 C5 | 9101 D1 | 9123 F3 | 9141 E4 |
| 223 C2 | 7107 B1 | 1112 F5 | 2121 C3 | 2165 E5 | 3138 E2 | 3244 C4 | 5127 F3 | 7109 C5 | 9107 F2 | 9124 D3 | 9142 E4 |
| 230 D1 | 7111 F3 | 1117 F4 | 2123 C4 | 2193 E3 | 3147 D2 | 5101 A4 | 6101 C5 | 7112 D1 | 9108 E2 | 9125 B4 | 9144 E4 |
| 231 D1 | 7119 E1 | 2103 B3 | 2124 D3 | 2194 E3 | 3151 D2 | 5103 B3 | 6109 F5 | 7113 E3 | 9111 B2 | 9128 C3 | 9146 D4 |
| 233 B4 | TUNER A1 | 2104 B2 | 2129 D4 | 2210 B3 | 3155 C5 | 5104 B3 | 6121 A4 | 7114 F2 | 9113 D3 | 9130 B4 | 9147 F5 |
| 236 E3 | | 2107 B4 | 2131 C4 | 3101 B3 | 3158 C5 | 5105 D4 | 6122 A4 | 7115 E2 | 9114 F2 | 9132 C4 | 9149 E5 |
| 239 D3 | | 2114 E4 | 2142 D2 | 3108 A4 | 3162 C5 | 5106 E4 | 6123 A5 | 7116 D3 | 9115 E2 | 9133 B4 | 9151 E5 |
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| | | 2116 E4 | 2145 C1 | 3118 D3 | 3166 B5 | 5110 B4 | 7103 C4 | 7150 D5 | 9117 C3 | 9137 F4 | |
| | | 2117 D5 | 2146 C1 | 3120 F4 | 3167 B5 | 5111 D4 | 7104 E4 | 7151 E3 | 9119 E3 | 9138 B4 | |
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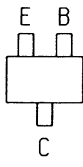
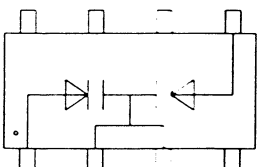


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| 2102 B4 | 2126 D3 | 2155 B1 | 2219 A2 | 3104 B4 | 3121 B3 | 3132 D2 | 3148 D5 | 3163 A1 | 3187 E1 | 3202 E4 | 6102 E5 |
| 2105 A3 | 2147 B2 | 2158 D1 | 2221 D1 | 3105 B4 | 3122 D3 | 3133 E3 | 3149 D5 | 3164 C2 | 3190 C1 | 3223 C2 | 7107 B1 |
| 2108 B3 | 2148 B2 | 2159 C1 | 2222 B3 | 3106 B3 | 3123 E2 | 3135 C3 | 3152 B3 | 3170 A1 | 3194 E2 | 3230 D1 | 7111 F3 |
| 2109 D3 | 2149 B2 | 2161 E5 | 2223 A2 | 3107 A3 | 3124 E3 | 3141 F4 | 3153 F4 | 3171 A1 | 3196 B2 | 3231 D1 | 7119 E1 |
| 2110 C3 | 2150 C2 | 2195 E3 | 2224 F2 | 3114 E3 | 3126 B2 | 3142 F4 | 3156 C1 | 3172 A1 | 3197 C1 | 3233 B4 | TUNER A1 |
| 2112 C3 | 2151 B1 | 2196 D5 | 2225 F2 | 3115 D3 | 3127 C2 | 3143 E5 | 3157 C1 | 3173 A1 | 3198 B2 | 3236 E3 | |
| 2113 B2 | 2153 B1 | 2215 E2 | 3102 B3 | 3116 D3 | 3128 C2 | 3144 E5 | 3159 A2 | 3184 E1 | 3200 D4 | 3239 D3 | |

TUNER 92 Copperside view

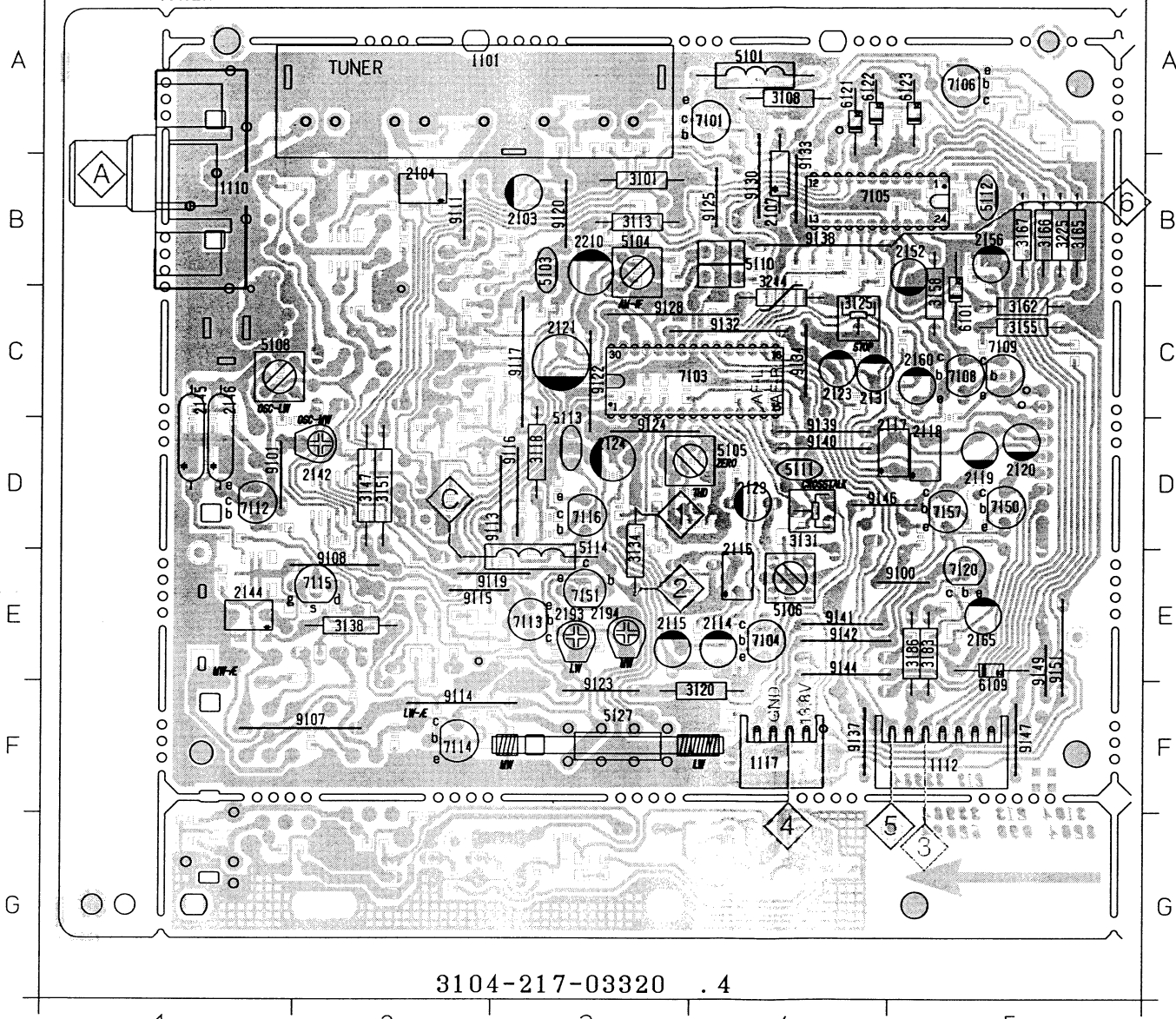


IC 6102 - 6125



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| 1110 B1 | 2120 D5 | 2160 C5 | 3134 D3 | 3225 B5 | 5114 E3 | 7108 C5 | 9101 D1 | 9123 F3 | 9141 E4 |
| 1112 F5 | 2121 C3 | 2165 E5 | 3138 E2 | 3244 C4 | 5127 F3 | 7109 C5 | 9107 F2 | 9124 D3 | 9142 E4 |
| 1117 F4 | 2123 C4 | 2193 E3 | 3147 D2 | 5101 A4 | 6101 C5 | 7112 D1 | 9108 E2 | 9125 B4 | 9144 E4 |
| 2103 B3 | 2124 D3 | 2194 E3 | 3151 D2 | 5103 B3 | 6109 F5 | 7113 E3 | 9111 B2 | 9128 C3 | 9146 D4 |
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| 2117 D5 | 2146 C1 | 3120 F4 | 3167 B5 | 5111 D4 | 7104 E4 | 7151 E3 | 9119 E3 | 9138 B4 | |
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TUNER UNIT

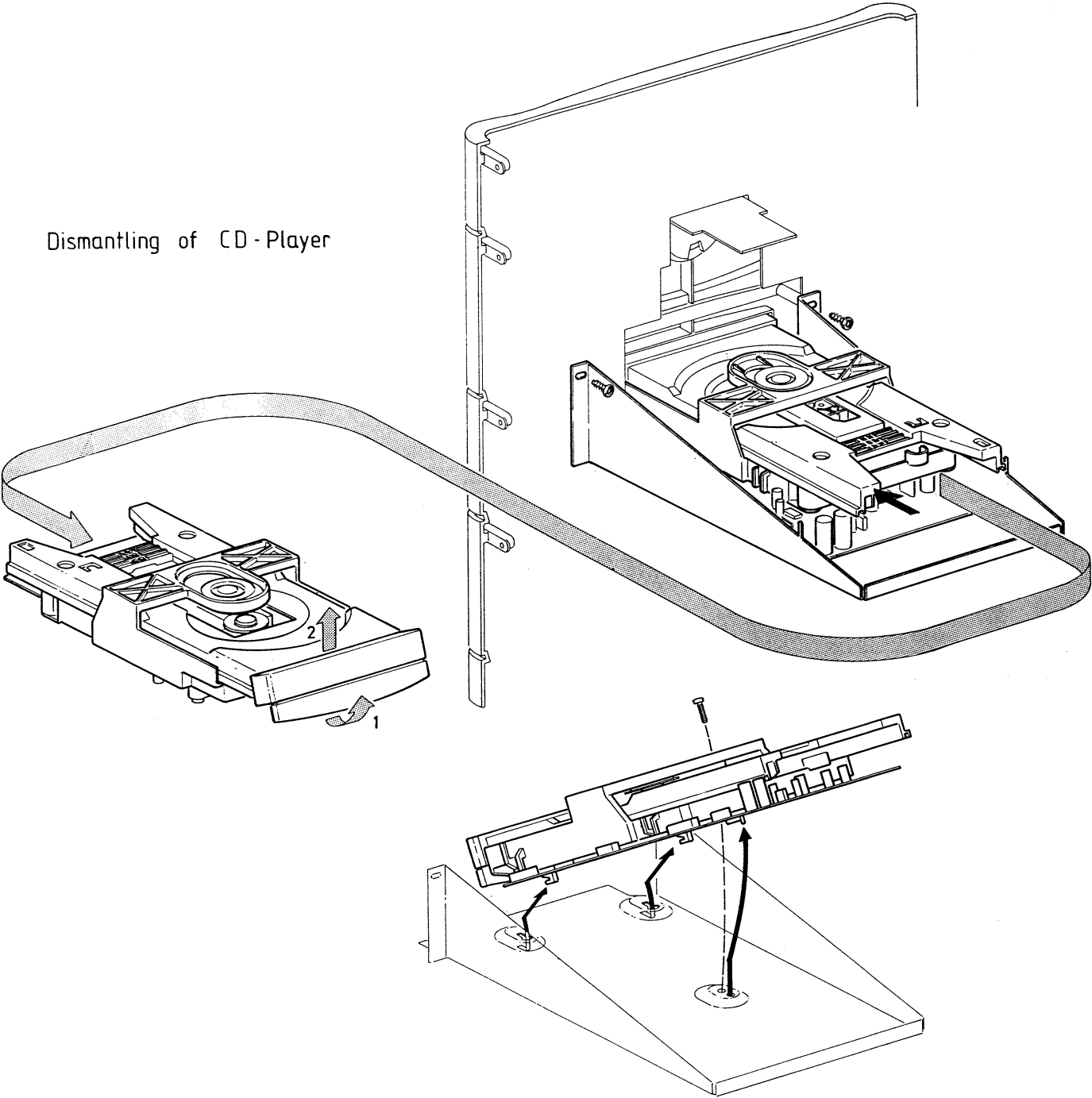


TUNER 92 Adj

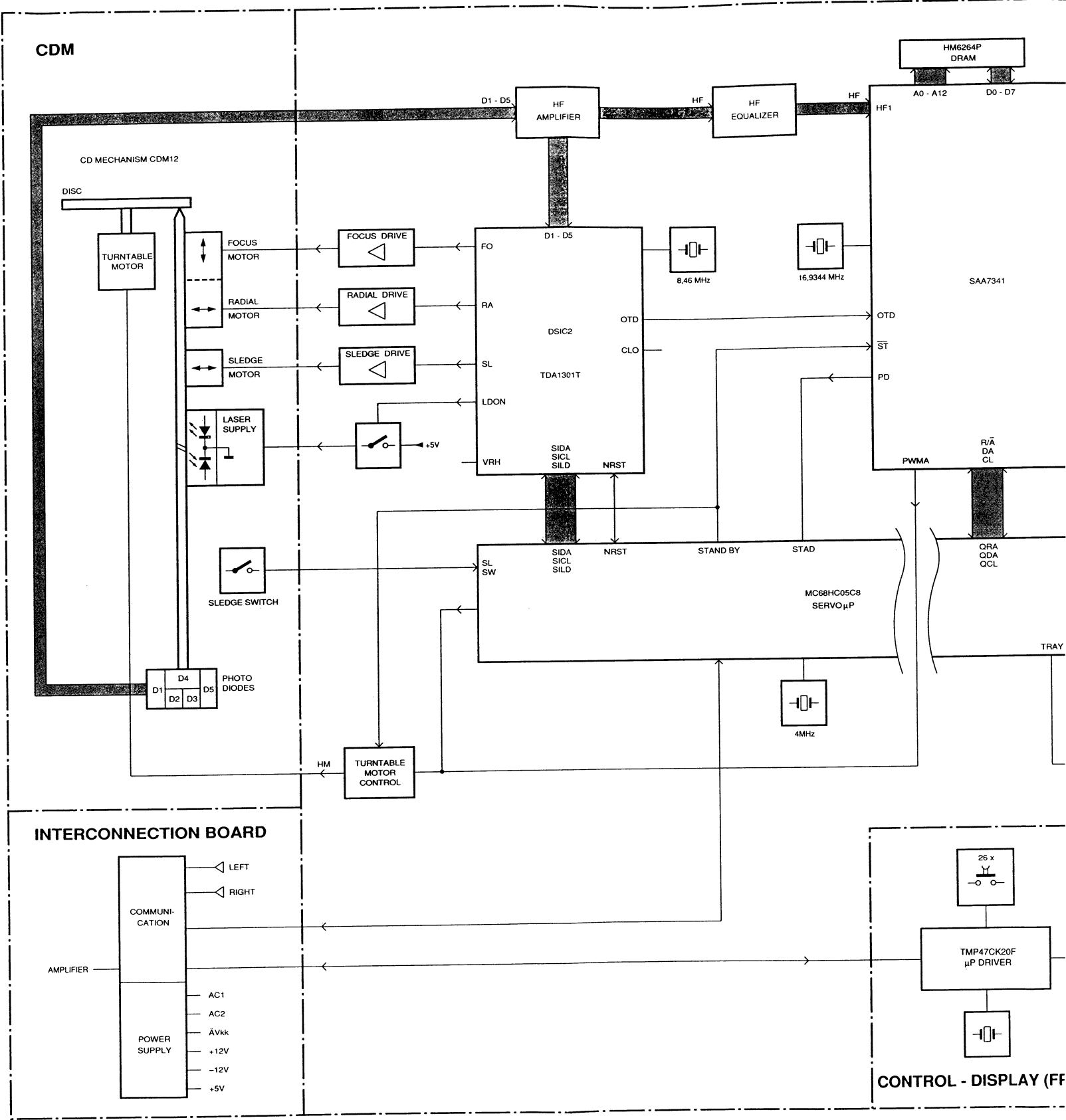
| Waverange |
|---|
| VARICAP ALIGNM |
| FM |
| 87.5 - 108MHz |
| AM |
| 2-band version, 10kHz grid 530 - 1710kHz |
| LW |
| 153 - 279kHz |
| MW |
| 522 - 1611kHz |
| FM IF |
| FM |
| STEREO CROSS |
| FM |
| SEARCH SENSIT |
| FM |
| AM - IF |
| MW |
| AM RF |
| AM |
| 2-band version, 10kHz gri m=30%, 1kHz |
| LW |
| m=30%, 1kHz |
| MW |
| m=30%, 1kHz |

repeat

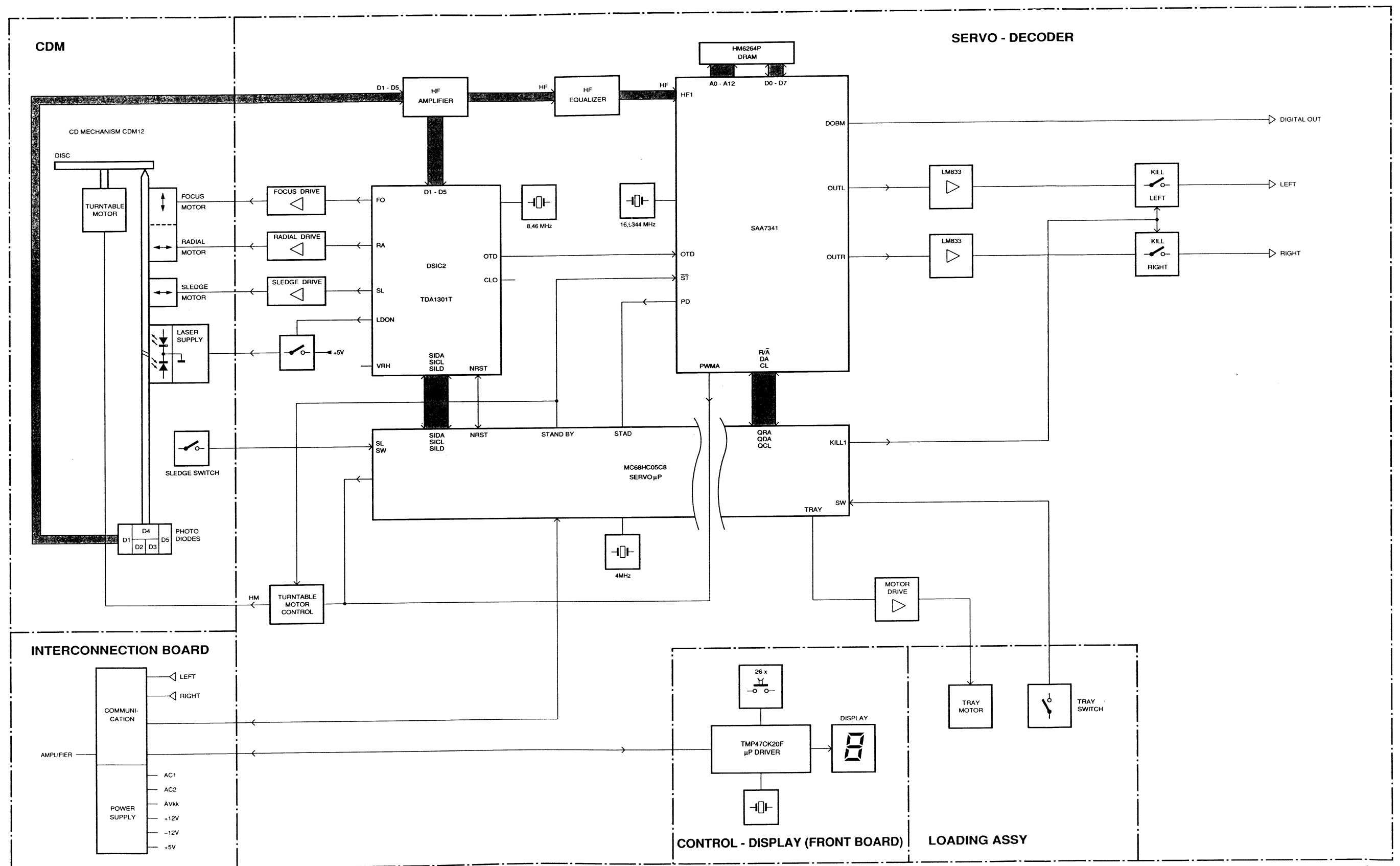
Dismantling of CD-Player



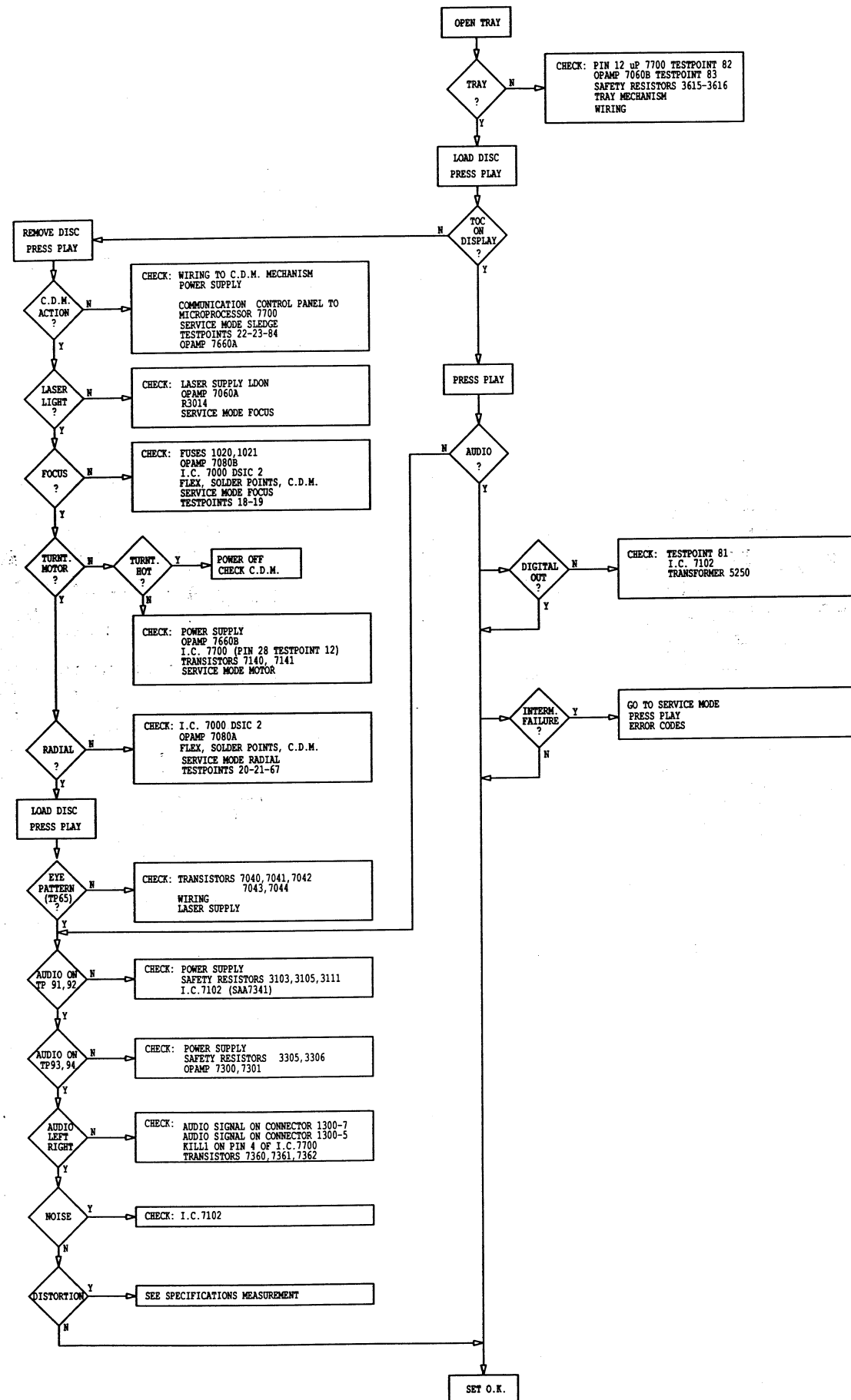
BLOCK DIAGRAM



BLOCK DIAGRAM



FAULTFINDING TREE

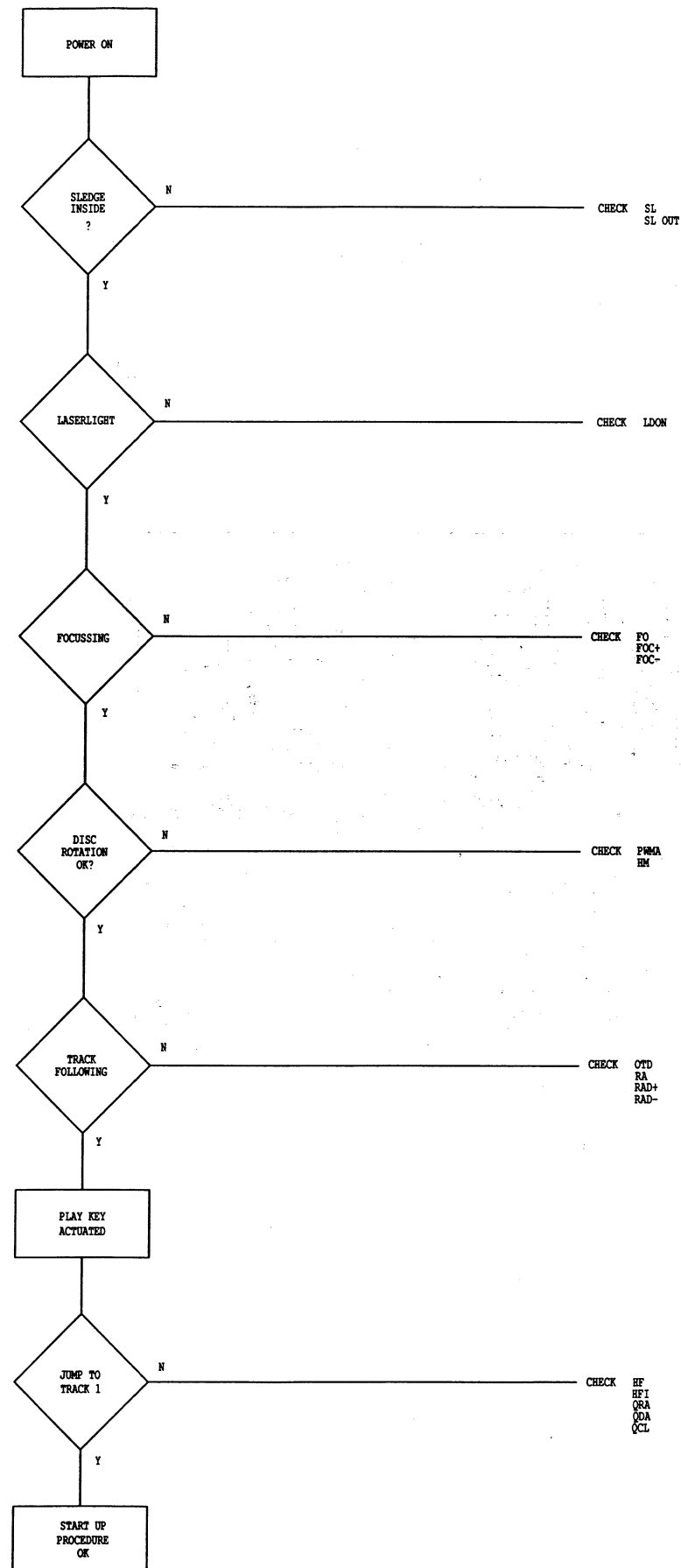


ABBREVIATIONS

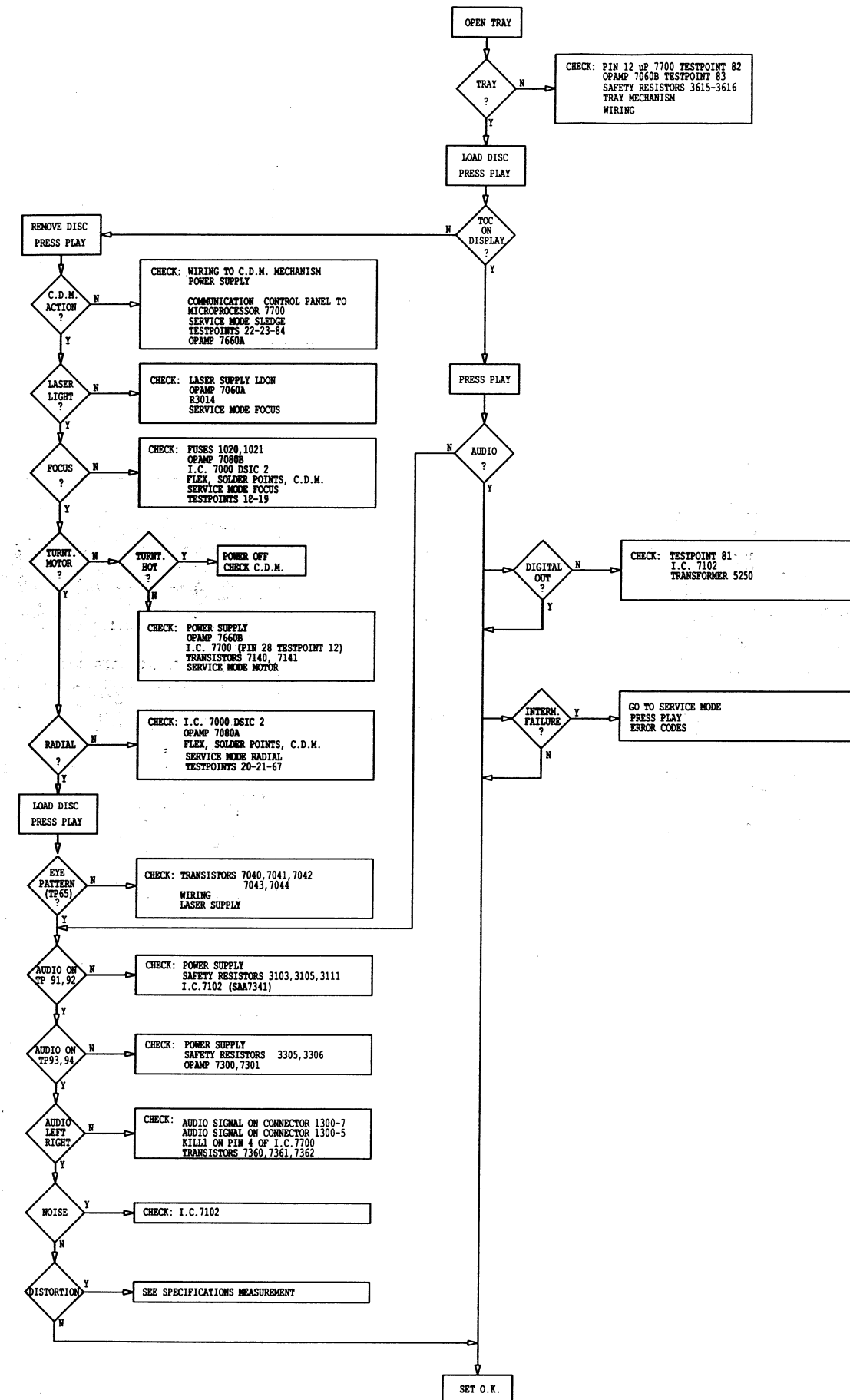
| | |
|---------|---|
| A0-A12 | : Address outputs to external RAM |
| AM* | : Additional mute |
| CFB | : Data slicer feedback output to capacitor |
| CL | : Microprocessor interface clock input |
| CLO | : Clock output |
| D0-D7 | : Data inputs/outputs to external RAM |
| D1-D4 | : Central diode signal input |
| DA | : Microprocessor interface data input/output line |
| DE1L | : Pin 1 for external de-emphasis capacitor and resistor |
| DE1R | : Pin 1 for external de-emphasis capacitor and resistor |
| DE2L | : Pin 2 for external de-emphasis capacitor and resistor |
| DE2R | : Pin 2 for external de-emphasis capacitor and resistor |
| DEEM | : Output for external de-emphasis switches |
| DOBM | : Digital audio output |
| FO | : Focus actuator output |
| HFD | : High frequency detector |
| HFI* | : Inverting data slicer input |
| HFI | : Non-inverting data slicer input |
| HM | : Motor control signal |
| IREF | : Current reference output |
| KO* | : Kill out |
| KTC | : Kill time capacitor connection |
| LDON | : Laser drive on |
| MACC | : Motor accelerate signal |
| MBRA | : Motor brake signal |
| MHAL | : Hall effect detector for motor |
| NRST | : Reset input |
| OC | : VCO control |
| OTD | : Off track detector |
| OUTL | : Left channel output |
| OUTR | : Right channel output |
| PD | : Phase detector |
| PWMA | : Pulse width modulated motor control acceleration |
| PWMB | : Pulse width modulated motor brake signal |
| R/A | : Request/acknowledge |
| SD1-5 | : Photodiode signals |
| SICL | : Serial interface clock |
| SIDA | : Serial interface data |
| SILD | : Serial interface load |
| SL | : Sledge output |
| ST* | : Standby mode |
| TS1-TS2 | : Test input |
| VddA | : Power supply analog part |
| VddD | : Power supply digital part |
| VRH | : Reference input for A/D converter |
| VRL | : Reference input for A/D converter |
| VssA | : Ground analog part |
| VssD | : Ground digital part |
| WE | : Write enable |
| XIN | : Crystal oscillator input |
| XOUT | : Output to clock crystal |
| XTLI | : Oscillator input |
| XTLO | : Oscillator output |
| XTLR | : Oscillator reference |

* log. 0-active !

START-UP PROCEDURE

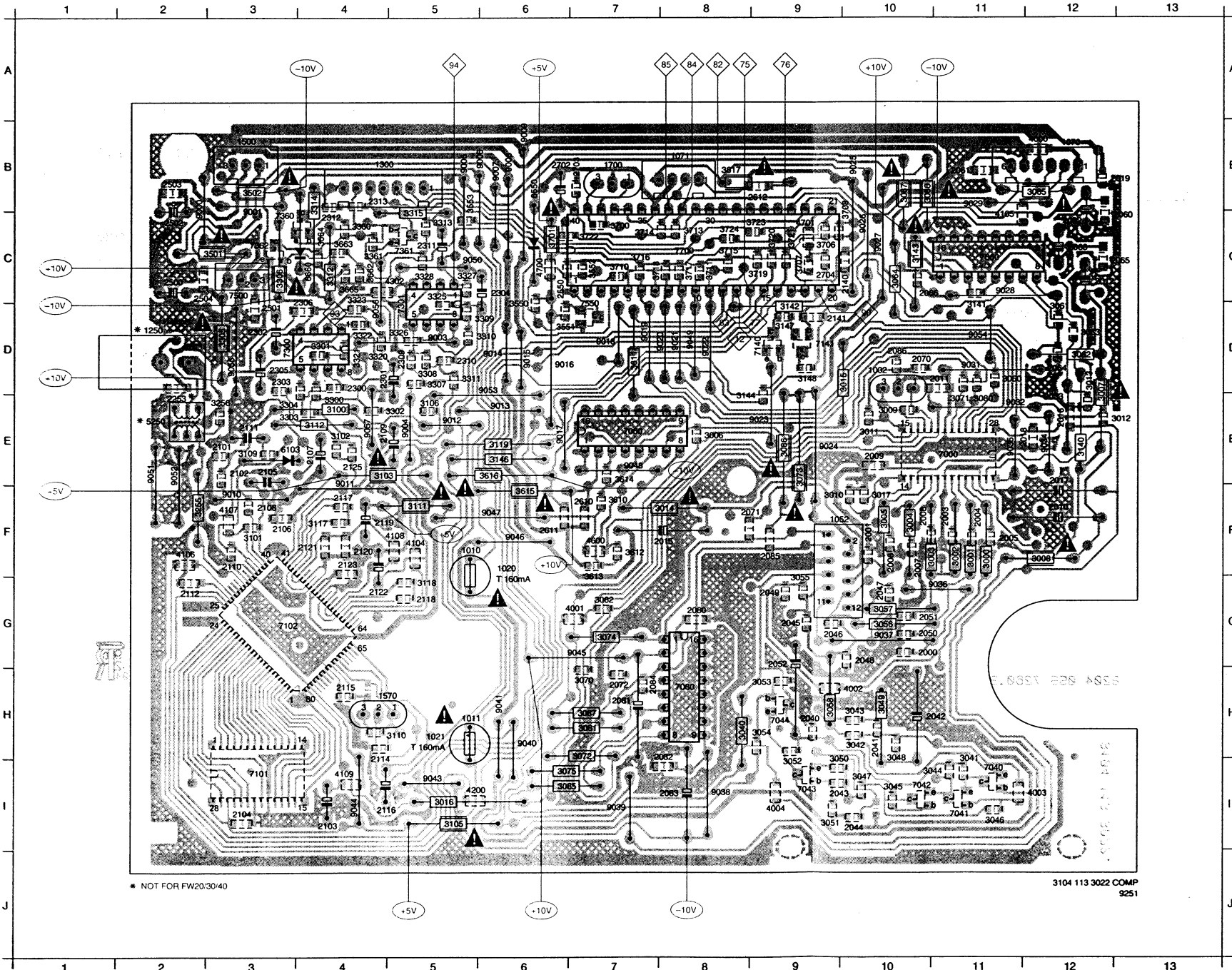


FAULTFINDING TREE

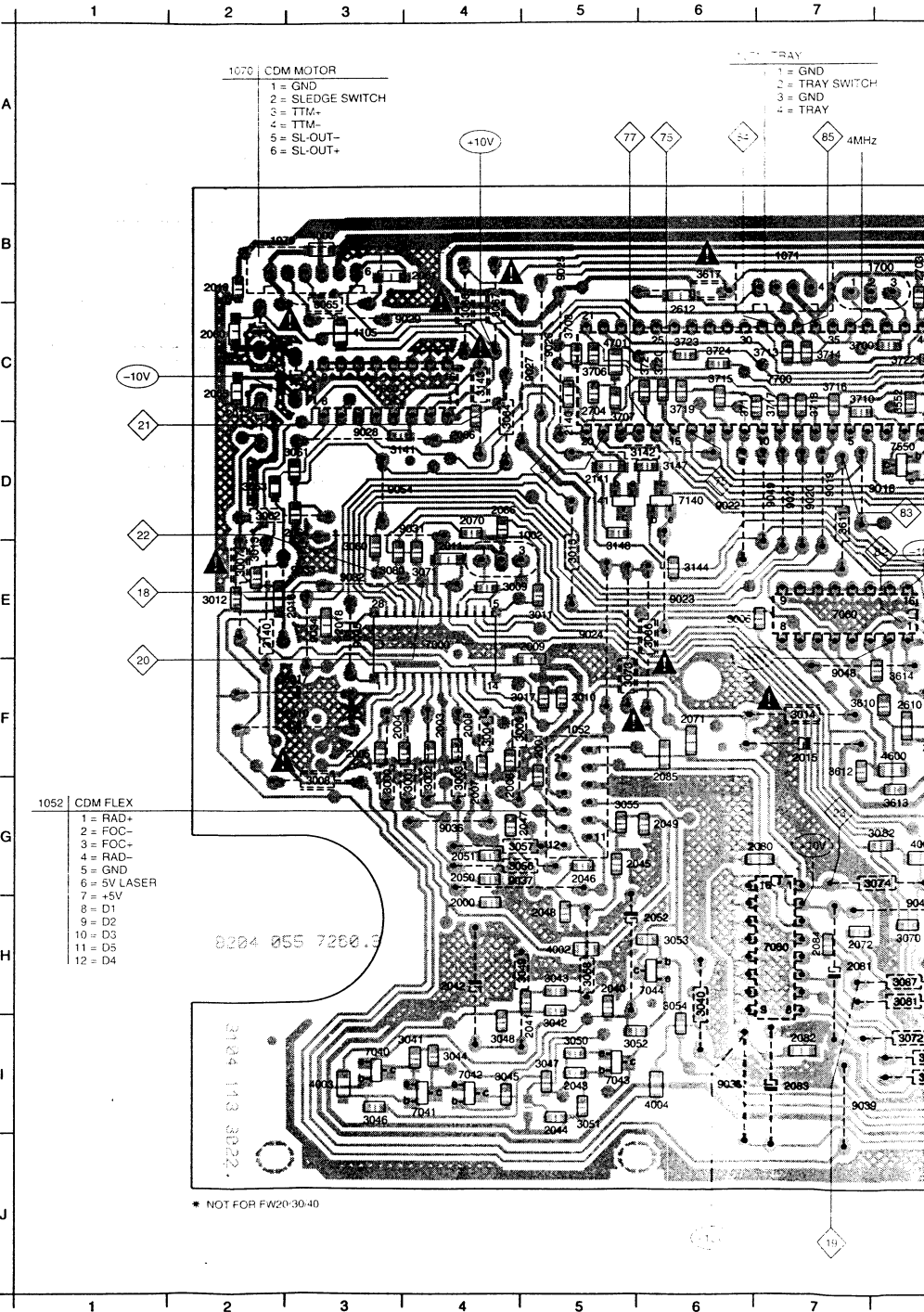


CD COMPONENT AND CHIP LAYOUT

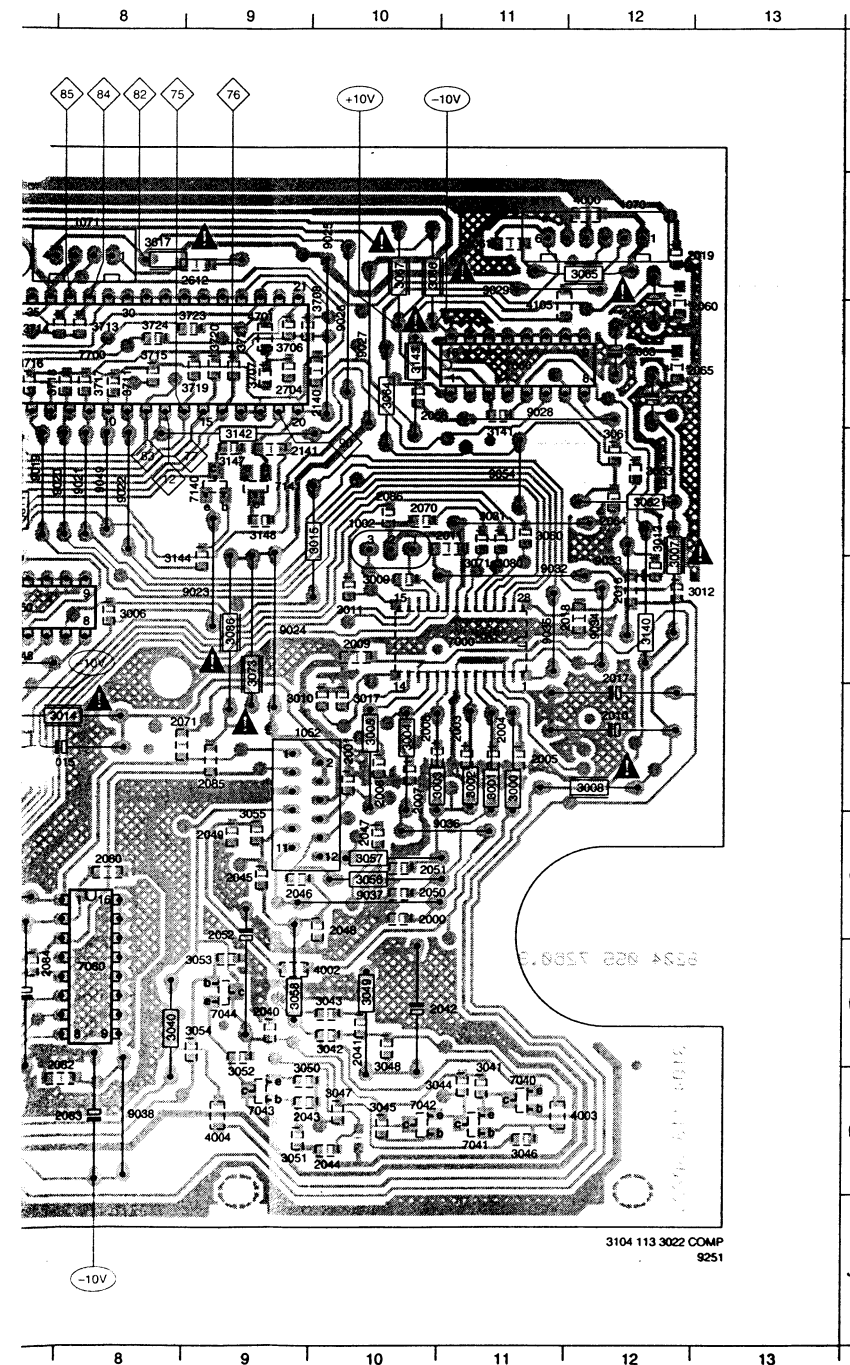
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| 1002 | D10 | 2008 | F10 | 2050 | G10 | 2101 | E3 | 2122 | G4 | 2502 | C2 | 3010 | F9 | 3052 | I9 | 3075 | I6 | 3140 | E12 | 3310 | D5 | 3552 | C7 | 3711 | C8 | 4106 | F2 | 7080 | H8 | 9007 | B6 | 9027 | C10 | 9049 | D8 |
| 1010 | F5 | 2009 | F10 | 2051 | G10 | 2102 | E3 | 2123 | F4 | 2503 | B2 | 3011 | E10 | 3053 | H9 | 3080 | E11 | 3141 | D11 | 3311 | D5 | 3553 | C5 | 3713 | C8 | 4107 | F3 | 7101 | I3 | 9008 | B6 | 9028 | C11 | 9050 | C5 |
| 1011 | H5 | 2010 | F10 | 2052 | G9 | 2103 | I4 | 2125 | E4 | 2504 | C2 | 3012 | E12 | 3054 | H9 | 3081 | H7 | 3142 | D9 | 3312 | C4 | 3610 | F7 | 3714 | C7 | 4108 | F4 | 7102 | G3 | 9009 | B6 | 9029 | B11 | 9051 | E2 |
| 1020 | F6 | 2011 | D10 | 2060 | C12 | 2104 | I3 | 2140 | C10 | 2550 | C6 | 3013 | D12 | 3055 | G9 | 3082 | G7 | 3143 | C10 | 3313 | C5 | 3611 | D7 | 3715 | C8 | 4109 | I4 | 7140 | D9 | 9010 | F3 | 9031 | D11 | 9052 | E2 |
| 1021 | H5 | 2012 | C12 | 2061 | B11 | 2105 | E3 | 2141 | D9 | 2610 | F7 | 3014 | F7 | 3056 | G10 | 3085 | I6 | 3144 | E8 | 3314 | C4 | 3612 | F7 | 3716 | C7 | 4200 | I5 | 7141 | D9 | 9011 | F4 | 9032 | E11 | 9053 | D5 |
| 1052 | F9 | 2015 | F7 | 2062 | C12 | 2106 | F3 | 2253 | E2 | 2611 | F6 | 3015 | D10 | 3057 | G10 | 3086 | E9 | 3146 | E6 | 3315 | C5 | 3613 | G7 | 3717 | C8 | 4302 | C4 | 7300 | D3 | 9012 | E5 | 9033 | E12 | 9054 | D11 |
| 1070 | B12 | 2016 | E12 | 2063 | C12 | 2107 | E4 | 2300 | D4 | 2612 | B8 | 3016 | I5 | 3058 | H9 | 3087 | H7 | 3147 | D9 | 3320 | D4 | 3614 | E7 | 3718 | C7 | 4600 | F7 | 7301 | D5 | 9013 | E6 | 9034 | E12 | 9055 | D3 |
| 1071 | B8 | 2017 | E12 | 2064 | D12 | 2108 | F3 | 2301 | D4 | 2702 | B6 | 3017 | F10 | 3060 | D11 | 3100 | E4 | 3148 | D9 | 3321 | D4 | 3615 | F6 | 3719 | C8 | 4700 | C6 | 7360 | C3 | 9014 | D6 | 9035 | E11 | 9056 | D4 |
| 1250 | D2 | 2018 | E12 | 2065 | C12 | 2109 | E4 | 2302 | D3 | 2703 | B7 | 3040 | H8 | 3061 | D12 | 3101 | F3 | 3255 | F2 | 3322 | D4 | 3616 | E6 | 3720 | C9 | 4701 | C9 | 7361 | C5 | 9015 | D6 | 9036 | G10 | 9057 | E4 |
| 1300 | B4 | 2019 | B12 | 2066 | C10 | 2110 | F3 | 2303 | D3 | 2704 | C9 | 3041 | I11 | 3062 | D12 | 3102 | E4 | 3256 | E3 | 3323 | C4 | 3617 | B8 | 3721 | C9 | 5250 | E2 | 7362 | C3 | 9016 | D6 | 9037 | G10 | | |
| 1500 | B3 | 2040 | H9 | 2070 | D10 | 2111 | E3 | 2304 | C6 | 3000 | F11 | 3042 | H10 | 3063 | D12 | 3103 | E4 | 3300 | E4 | 3325 | C5 | 3662 | C4 | 3722 | C7 | 6103 | E3 | 7500 | C3 | 9017 | E6 | 9038 | I8 | | |
| 1570 | H4 | 2041 | H10 | 2071 | F8 | 2112 | G2 | 2305 | D3 | 3001 | F11 | 3043 | H10 | 3064 | C10 | 3105 | I5 | 3301 | D4 | 3326 | D5 | 3663 | C4 | 3723 | C8 | 6550 | B6 | 7550 | D7 | 9018 | D7 | 9039 | I7 | | |
| 1700 | B7 | 2042 | H10 | 2072 | H7 | 2114 | I4 | 2306 | D3 | 3002 | F11 | 3044 | I10 | 3065 | B12 | 3106 | E5 | 3302 | E4 | 3327 | C5 | 3664 | C4 | 3724 | C8 | 6660 | C4 | 7660 | C11 | 9019 | D7 | 9040 | H6 | | |
| 2000 | G10 | 2043 | I9 | 2080 | G8 | 2115 | H4 | 2309 | D5 | 3003 | F11 | 3045 | I10 | 3066 | B10 | 3109 | E3 | 3303 | E3 | 3328 | C5 | 3665 | C4 | 4000 | B12 | 7000 | E11 | 7700 | C8 | 9020 | D8 | 9041 | H6 | | |
| 2001 | F10 | 2044 | I10 | 2081 | H7 | 2116 | I4 | 2310 | D5 | 3004 | F10 | 3046 | I11 | 3067 | B10 | 3110 | H5 | 3304 | E3 | 3360 | C4 | 3700 | C7 | 4001 | G6 | 7040 | I11 | 9000 | C2 | 9021 | D8 | 9043 | I5 | | |
| 2003 | F11 | 2045 | G9 | 2082 | I7 | 2117 | F4 | 2311 | C5 | 3005 | F10 | 3047 | I10 | 3070 | H7 | 3111 | F5 | 3305 | D3 | 3361 | C4 | 3701 | C6 | 4002 | H10 | 7041 | I11 | 9001 | C3 | 9022 | D8 | 9044 | I4 | | |
| 2004 | F11 | 2046 | G9 | 2083 | I8 | 2118 | G5 | 2312 | C4 | 3006 | E8 | 3048 | I10 | 3071 | E11 | 3112 | E4 | 3306 | C3 | 3501 | C2 | 3706 | C9 | 4003 | I12 | 7042 | I10 | 9003 | D5 | 9023 | E8 | 9045 | G6 | | |
| 2005 | F11 | 2047 | G10 | 2084 | H7 | 2119 | F4 | 2313 | B4 | 3007 | E12 | 3049 | H10 | 3072 | I7 | 3117 | F4 | 3307 | D5 | 3502 | B3 | 3707 | C9 | 4004 | I9 | 7043 | I9 | 9004 | E5 | 9024 | E9 | 9046 | F6 | | |
| 2007 | G10 | 2048 | G10 | 2085 | F9 | 2120 | F4 | 2500 | C2 | 3008 | F12 | 3050 | I9 | 3073 | F9 | 3118 | G5 | 3308 | D5 | 3550 | D6 | 3708 | C10 | 4104 | F5 | 7044 | H9 | 9005 | B5 | 9025 | B10 | 9047 | F6 | | |
| 2008 | F10 | 2049 | G9 | 2086 | D10 | 2121 | F4 | 2501 | D3 | 3009 | E10 | 3051 | I9 | 3074 | G7 | 3119 | E6 | 3309 | D5 | 3551 | D6 | 3710 | C7 | 4105 | C11 | 7060 | E7 | 9006 | B6 | 9026 | C10 | 9048 | E7 | | |



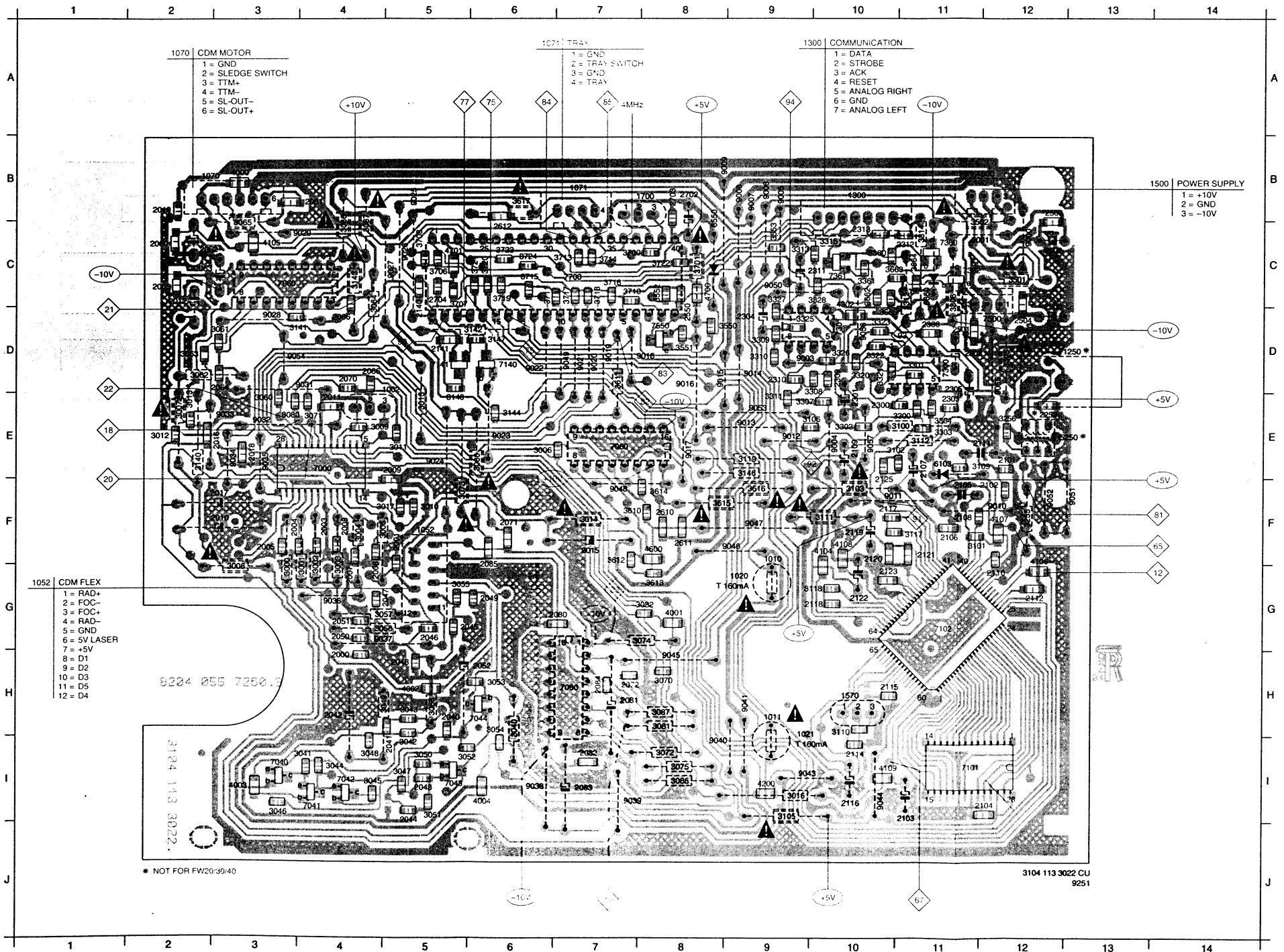
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| 1002 | E4 | 2007 | G4 | 2046 | G5 | 2081 | H7 | 2114 | I10 | 2304 | D9 | 2703 | B8 | 3016 | I9 | 3056 | G4 | 3081 | H8 | 3140 | E2 | | | | | | | | | | | | | | |
| 1010 | F9 | 2008 | F4 | 2047 | G5 | 2082 | I7 | 2115 | H10 | 2305 | D11 | 2704 | C5 | 3017 | F4 | 3057 | G4 | 3082 | G7 | 3141 | D3 | | | | | | | | | | | | | | |
| 1011 | H9 | 2009 | G4 | 2048 | H5 | 2083 | I7 | 2116 | I10 | 2306 | D11 | 2705 | C5 | 3018 | F4 | 3058 | H5 | 3083 | H8 | 3142 | D5 | | | | | | | | | | | | | | |
| 1020 | G9 | 2009 | E5 | 2049 | G6 | 2084 | H7 | 2117 | F10 | 2309 | D10 | 2706 | C5 | 3019 | I3 | 3059 | H5 | 3084 | I8 | 3143 | C4 | | | | | | | | | | | | | | |
| 1021 | I9 | 2010 | F2 | 2050 | G4 | 2085 | G6 | 2118 | G9 | 2310 | D9 | 2707 | C5 | 3020 | I3 | 3060 | E3 | 3085 | E6 | 3144 | C4 | | | | | | | | | | | | | | |
| 1052 | F5 | 2011 | E4 | 2051 | G4 | 2086 | D4 | 2119 | F10 | 2311 | C9 | 2708 | C5 | 3021 | G4 | 3061 | D2 | 3086 | H8 | 3145 | E6 | | | | | | | | | | | | | | |
| 1070 | B2 | 2012 | C2 | 2052 | H6 | 2101 | E12 | 2120 | F10 | 2312 | C10 | 2709 | C5 | 3022 | H4 | 3062 | D2 | 3087 | H8 | 3146 | E9 | | | | | | | | | | | | | | |
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| 1250 | D12 | 2016 | E3 | 2061 | B4 | 2103 | I11 | 2122 | G10 | 2500 | D12 | 2706 | C5 | 3026 | E6 | 3046 | I3 | 3065 | C3 | 3103 | F10 | 3255 | F12 | | | | | | | | | | | | |
| 1300 | B10 | 2017 | F2 | 2062 | C2 | 2104 | I11 | 2123 | G10 | 2501 | D11 | 2707 | C5 | 3027 | E6 | 3047 | I3 | 3066 | C4 | 3105 | I9 | 3256 | E12 | | | | | | | | | | | | |
| 1500 | B11 | 2018 | E3 | 2063 | C2 | 2105 | F11 | 2125 | F10 | 2502 | C12 | 2008 | G3 | 3048 | H4 | 3067 | C4 | 3106 | E9 | 3300 | E10 | | | | | | | | | | | | | | |
| 1570 | H10 | 2019 | B2 | 2064 | D2 | 2106 | F11 | 2140 | D5 | 2503 | B12 | 3009 | G4 | 3049 | H5 | 3070 | H8 | 3109 | E11 | 3301 | D11 | | | | | | | | | | | | | | |
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| 2000 | H4 | 2041 | I5 | 2066 | D4 | 2108 | F11 | 2253 | E12 | 2550 | D8 | 3011 | E5 | 3051 | I5 | 3072 | H8 | 3111 | F10 | 3303 | E11 | | | | | | | | | | | | | | |
| 2001 | F5 | 2042 | H4 | 2070 | D4 | 2109 | E10 | 2300 | E10 | 2610 | F8 | 3012 | E2 | 3052 | I5 | 3073 | F5 | 3112 | E11 | 3304 | E11 | | | | | | | | | | | | | | |
| 2003 | F4 | 2043 | I5 | 2071 | F6 | 2110 | G12 | 2301 | E10 | 2611 | F8 | 3013 | E2 | 3053 | H6 | 3074 | G7 | 3117 | F11 | 3305 | D12 | | | | | | | | | | | | | | |
| 2004 | F3 | 2044 | J5 | 2072 | H7 | 2111 | E11 | 2302 | D11 | 2612 | C6 | 3014 | F7 | 3054 | H6 | 3075 | H8 | 3118 | E9 | 3306 | D11 | | | | | | | | | | | | | | |
| 2005 | F3 | 2045 | G5 | 2080 | G6 | 2112 | G12 | 2303 | E11 | 2702 | B8 | 3015 | E5 | 3055 | G5 | 3080 | E3 | 3119 | E9 | 3307 | E9 | | | | | | | | | | | | | | |

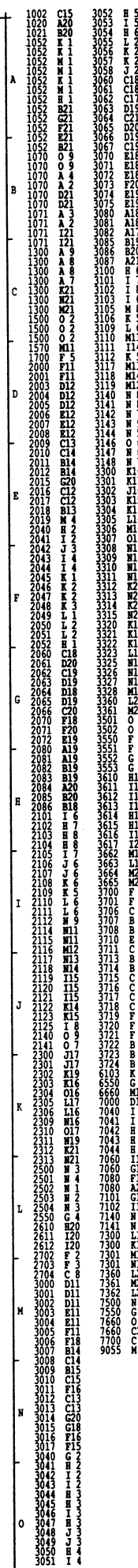


| | | | | | | | | | | | | | | | | |
|---|------|----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|------|-----|
| 2 | 3310 | D5 | 3552 | C7 | 3711 | C8 | 4106 | F2 | 7080 | H8 | 9007 | B6 | 9027 | C10 | 9049 | D8 |
| 1 | 3311 | D5 | 3553 | C5 | 3713 | C8 | 4107 | F3 | 7101 | I3 | 9008 | B6 | 9028 | C11 | 9050 | C5 |
| 0 | 3312 | C4 | 3610 | F7 | 3714 | C7 | 4108 | F4 | 7102 | G3 | 9009 | B6 | 9029 | B11 | 9051 | E2 |
| | 3313 | C5 | 3611 | D7 | 3715 | C8 | 4109 | I4 | 7140 | D9 | 9010 | F3 | 9031 | D11 | 9052 | E2 |
| | 3314 | C4 | 3612 | F7 | 3716 | C7 | 4200 | I5 | 7141 | D9 | 9011 | F4 | 9032 | E11 | 9053 | D5 |
| | 3315 | C5 | 3613 | G7 | 3717 | C8 | 4302 | C4 | 7300 | D3 | 9012 | E5 | 9033 | E12 | 9054 | D11 |
| | 3320 | D4 | 3614 | E7 | 3718 | C7 | 4600 | F7 | 7301 | D5 | 9013 | E5 | 9034 | E12 | 9055 | D3 |
| | 3321 | D4 | 3615 | F6 | 3719 | C8 | 4700 | C6 | 7360 | C3 | 9014 | D6 | 9035 | E11 | 9056 | D4 |
| | 3322 | D4 | 3616 | E6 | 3720 | C9 | 4701 | C9 | 7361 | C5 | 9015 | D6 | 9036 | G10 | 9057 | E4 |
| | 3323 | C4 | 3617 | B8 | 3721 | C9 | 5250 | E2 | 7362 | C3 | 9016 | D6 | 9037 | G10 | | |
| | 3325 | C5 | 3662 | C4 | 3722 | C7 | 6103 | E3 | 7500 | C3 | 9017 | E6 | 9038 | I8 | | |
| | 3326 | D5 | 3663 | C4 | 3723 | C8 | 6550 | B6 | 7550 | D7 | 9018 | D7 | 9039 | I7 | | |
| | 3327 | C5 | 3664 | C4 | 3724 | C8 | 6660 | C4 | 7660 | C11 | 9019 | D7 | 9040 | H6 | | |
| | 3328 | C5 | 3665 | C4 | 4000 | B12 | 7000 | E11 | 7700 | C8 | 9020 | D8 | 9041 | H6 | | |
| | 3360 | C4 | 3700 | C7 | 4001 | G6 | 7040 | I11 | 9000 | C2 | 9021 | D8 | 9043 | I5 | | |
| | 3361 | C4 | 3701 | C6 | 4002 | H10 | 7041 | I11 | 9001 | C3 | 9022 | D8 | 9044 | I4 | | |
| | 3501 | C2 | 3706 | C9 | 4003 | I12 | 7042 | I10 | 9003 | D5 | 9023 | E8 | 9045 | G6 | | |
| | 3502 | B3 | 3707 | C9 | 4004 | I9 | 7043 | I9 | 9004 | E5 | 9024 | E9 | 9046 | F6 | | |
| | 3550 | D6 | 3708 | C10 | 4104 | F5 | 7044 | H9 | 9005 | B5 | 9025 | B10 | 9047 | F6 | | |
| | 3551 | D6 | 3710 | C7 | 4105 | C11 | 7060 | E7 | 9006 | B6 | 9026 | C10 | 9048 | E7 | | |

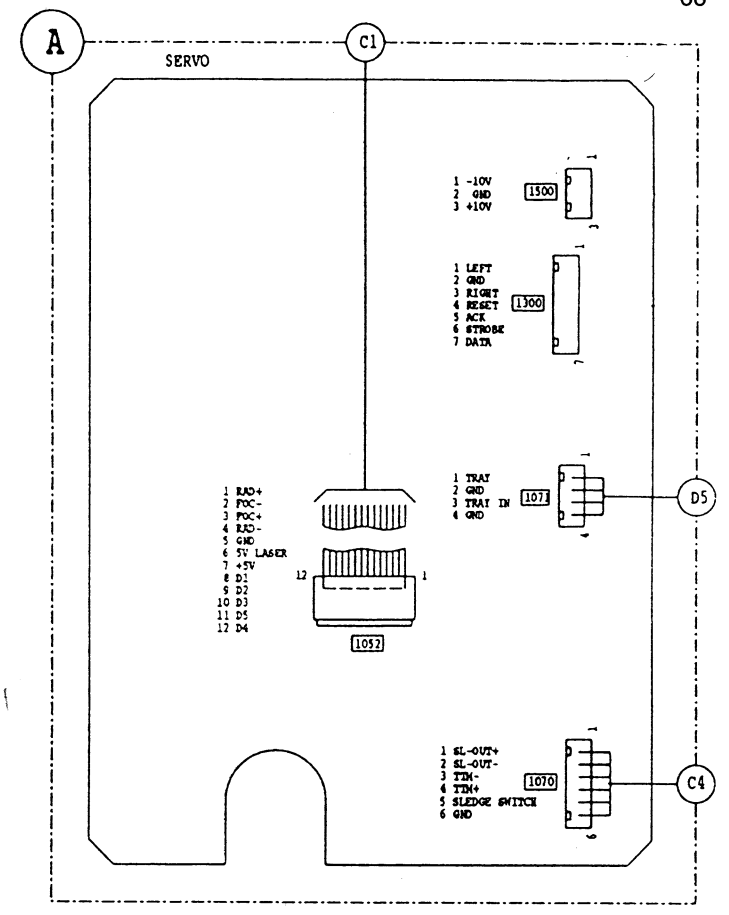


| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|-----|------|----|------|----|------|-----|------|-----|------|-----|------|----|------|----|------|----|------|-----|------|-----|------|-----|------|-----|------|----|------|-----|------|-----|------|-----|------|----|------|-----|------|-----|
| 1002 | E4 | 2007 | G4 | 2046 | G5 | 2081 | H7 | 2114 | I10 | 2304 | D9 | 2703 | B8 | 3016 | I9 | 3056 | G4 | 3081 | H8 | 3140 | E2 | 3308 | E9 | 3501 | C12 | 3700 | C7 | 3724 | C6 | 6103 | E11 | 7361 | C10 | 9013 | E9 | 9032 | E3 | 9051 | F13 |
| 1010 | F9 | 2008 | F4 | 2047 | G5 | 2082 | I7 | 2115 | H10 | 2305 | D11 | 2704 | C5 | 3017 | F4 | 3057 | G4 | 3082 | G7 | 3141 | D3 | 3309 | D9 | 3502 | C11 | 3701 | C8 | 4000 | B3 | 6550 | C8 | 7362 | C11 | 9014 | D9 | 9033 | E3 | 9052 | F12 |
| 1011 | H9 | 2009 | G4 | 2048 | H5 | 2083 | I7 | 2116 | I10 | 2306 | D10 | 2705 | C5 | 3018 | F4 | 3058 | H5 | 3083 | H8 | 3142 | D5 | 3310 | D9 | 3503 | D8 | 3702 | C5 | 4001 | G8 | 6660 | C11 | 7500 | D12 | 9015 | D8 | 9034 | E3 | 9053 | E9 |
| 1020 | G9 | 2009 | E5 | 2049 | G6 | 2084 | H7 | 2117 | F10 | 2309 | D10 | 2706 | C5 | 3019 | G4 | 3059 | E3 | 3084 | E6 | 3143 | C4 | 3311 | E9 | 3551 | D8 | 3707 | D5 | 4002 | H5 | 7000 | E4 | 7550 | D8 | 9016 | D8 | 9035 | E3 | 9054 | D3 |
| 1021 | I9 | 2010 | F2 | 2050 | G4 | 2085 | G6 | 2118 | G9 | 2310 | D9 | 2707 | C5 | 3020 | G4 | 3060 | D2 | 3085 | H8 | 3144 | E6 | 3312 | D11 | 3552 | C8 | 3708 | C5 | 4003 | I3 | 7040 | I3 | 7660 | C3 | 9017 | E8 | 9036 | G4 | 9055 | E12 |
| 1052 | F5 | 2011 | E4 | 2051 | G4 | 2086 | D4 | 2119 | F10 | 2311 | C9 | 2708 | C5 | 3021 | H5 | 3061 | D2 | 3086 | E10 | 3145 | E9 | 3313 | C9 | 3553 | C9 | 3710 | C7 | 4004 | I6 | 7041 | I4 | 7700 | C7 | 9018 | D7 | 9037 | G4 | 9056 | D10 |
| 1070 | B2 | 2012 | C2 | 2052 | H6 | 2101 | E12 | 2120 | F10 | 2312 | C10 | 2709 | C5 | 3022 | I4 | 3062 | D2 | 3101 | F11 | 3147 | D6 | 3314 | C11 | 3610 | F7 | 3711 | C6 | 4104 | F10 | 7042 | I4 | 9000 | C12 | 9019 | D7 | 9038 | I6 | 9057 | E10 |
| 1071 | B7 | 2015 | F7 | 2060 | C2 | 2102 | F11 | 2121 | F11 | 2313 | C10 | 2710 | C5 | 3023 | F5 | 3063 | D4 | 3102 | E10 | 3148 | E5 | 3315 | C10 | 3611 | D7 | 3713 | C6 | 4105 | C3 | 7043 | I5 | 9001 | C11 | 9020 | D7 | 9039 | I7 | | |
| 1250 | D12 | 2016 | E3 | 2061 | B4 | 2103 | I11 | 2122 | G10 | 2500 | D12 | 2711 | C5 | 3024 | E6 | 3064 | C3 | 3103 | F10 | 3255 | F12 | 3320 | D10 | 3612 | F7 | 3714 | C7 | 4106 | F12 | 7044 | H6 | 9003 | D9 | 9021 | D7 | 9040 | I8 | | |
| 1300 | B10 | 2017 | F2 | 2062 | C2 | 2104 | I11 | 2123 | G10 | 2501 | D11 | 2712 | C5 | 3025 | E2 | 3065 | C4 | 3104 | E9 | 3256 | E12 | 3321 | D10 | 3613 | G8 | 3715 | C6 | 4107 | F12 | 7060 | E7 | 9004 | E10 | 9022 | D6 | 9041 | H9 | | |
| 1500 | B11 | 2018 | E3 | 2063 | C2 | 2105 | F11 | 2125 | F10 | 2502 | C12 | 2713 | C5 | 3026 | G3 | 3066 | C4 | 3105 | I9 | 3257 | E12 | 3322 | D10 | 3614 | F8 | 3716 | C7 | 4108 | F10 | 7080 | H7 | 9005 | B9 | 9023 | E6 | 9043 | I9 | | |
| 1570 | H10 | 2019 | B2 | 2064 | D2 | 2106 | F11 | 2140 | D5 | 2503 | B12 | 2714 | C5 | 3027 | E4 | 3067 | H8 | 3106 | E11 | 3301 | D11 | 3323 | D10 | 3615 | F8 | 3717 | C7 | 4109 | I10 | 7101 | I11 | 9006 | B9 | 9024 | E5 | 9044 | I10 | | |
| 1700 | B7 | 2040 | H5 | 2065 | C2 | 2107 | E11 | 2141 | D5 | 2504 | D12 | 2715 | C5 | 3028 | I5 | 3068 | E3 | 3107 | H10 | 3302 | E10 | 3324 | D10 | 3616 | F9 | 3718 | C7 | 4200 | I9 | 7102 | G11 | 9007 | B9 | 9025 | B5 | 9045 | H8 | | |
| 2000 | H4 | 2041 | I5 | 2066 | D4 | 2108 | F11 | 2253 | E12 | 2550 | D8 | 2716 | C5 | 3029 | I5 | 3069 | E3 | 3108 | E9 | 3303 | E11 | 3325 | D10 | 3617 | B6 | 3719 | C6 | 4302 | D10 | 7140 | D6 | 9008 | B9 | 9026 | C5 | 9046 | F8 | | |
| 2001 | F5 | 2042 | H4 | 2070 | D4 | 2109 | E10 | 2300 | E10 | 2610 | F8 | 2717 | C5 | 3030 | I5 | 3070 | F5 | 3112 | E11 | 3304 | E11 | 3327 | C9 | 3662 | C10 | 3720 | C6 | 4600 | F8 | 7141 | D5 | 9009 | B8 | 9027 | C5 | 9047 | F7 | | |
| 2003 | F4 | 2043 | I5 | 2071 | F6 | 2110 | G12 | 2301 | E10 | 2611 | F8 | 2718 | C5 | 3031 | E2 | 3071 | G7 | 3113 | F11 | 3305 | D12 | 3328 | C9 | 3663 | C10 | 3721 | C6 | 4700 | C8 | 7300 | D11 | 9010 | F12 | 9028 | D3 | 9048 | F7 | | |
| 2004 | F3 | 2044 | J5 | 2072 | H7 | 2111 | E11 | 2302 | D11 | 2612 | C6 | 2719 | C5 | 3032 | F7 | 3072 | H8 | 3114 | G9 | 3306 | D11 | 3360 | C10 | 3664 | C11 | 3722 | C8 | 4701 | C5 | 7301 | D10 | 9011 | F10 | 9029 | D3 | 9049 | D7 | | |
| 2005 | F3 | 2045 | G5 | 2080 | G6 | 2112 | G12 | 2303 | E11 | 2702 | B8 | 2720 | C5 | 3033 | G5 | 3073 | E3 | 3115 | E9 | 3307 | E9 | 3361 | C10 | 3665 | D10 | 3723 | C8 | 5250 | E12 | 7360 | C11 | 9012 | E9 | 9031 | D3 | 9050 | C9 | | |





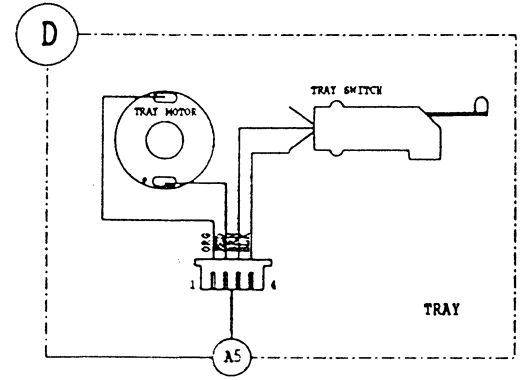
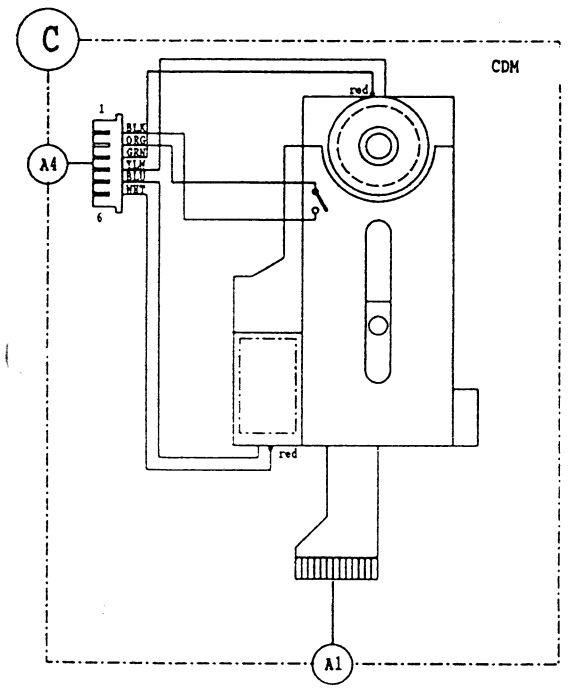
WIRING DIAGRAM CD-PART



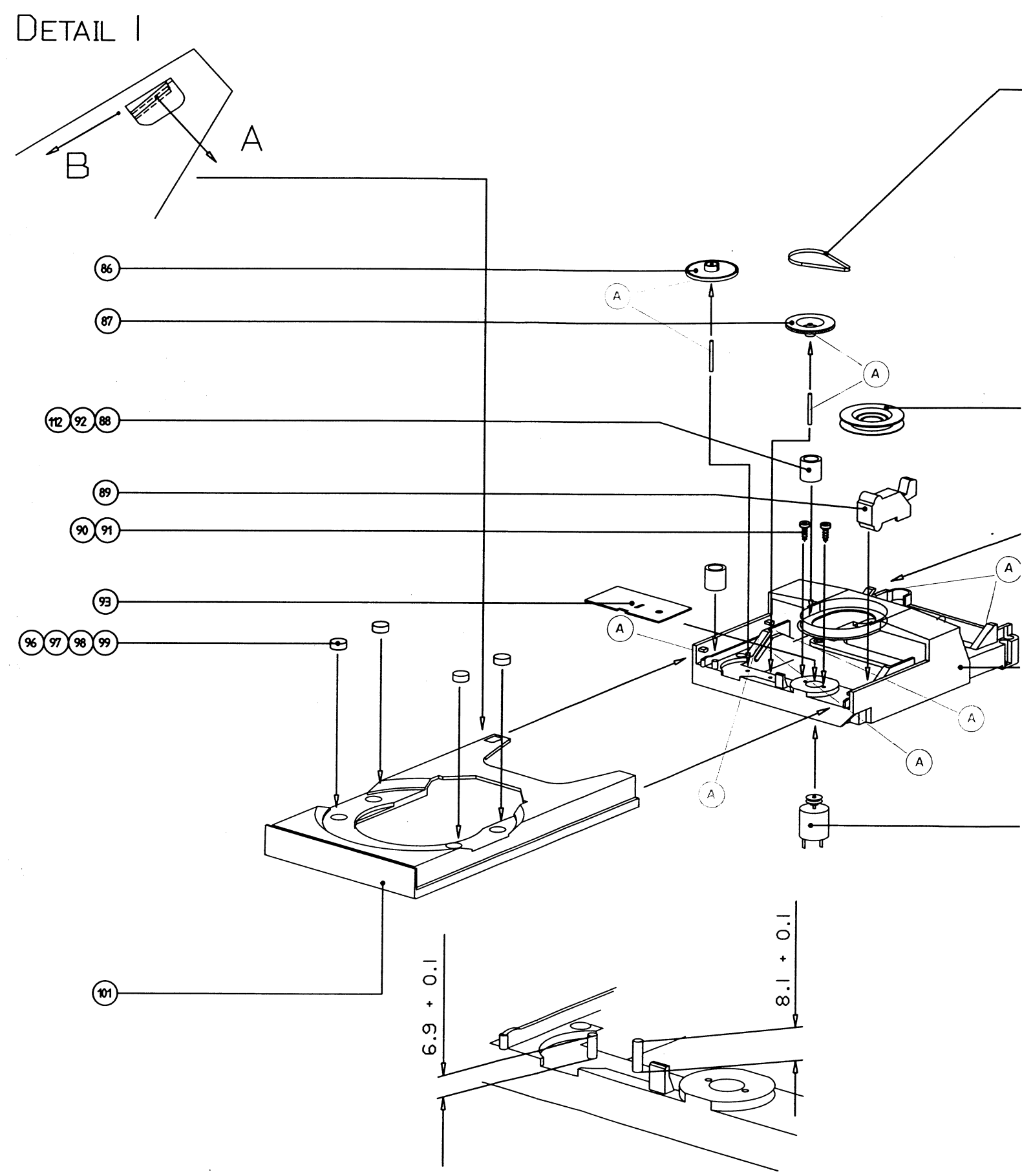
CD MECHANISM

| | |
|-----|----------------|
| 86 | 4822 528 81464 |
| 87 | 4822 528 81465 |
| 88 | 4822 325 60379 |
| 89 | 4822 276 13222 |
| 93 | 4822 444 60816 |
| 96 | 4822 325 80511 |
| 101 | 4822 444 50679 |
| 102 | 4822 358 31168 |
| 103 | 4822 691 30278 |
| 104 | 4822 325 50215 |
| 108 | 4822 402 61412 |
| 109 | 4822 464 50895 |
| 110 | 4822 444 50678 |
| 111 | 4822 361 21492 |

Note : Only the mentioned parts are normal service parts.



CD EXPLODED VIEW

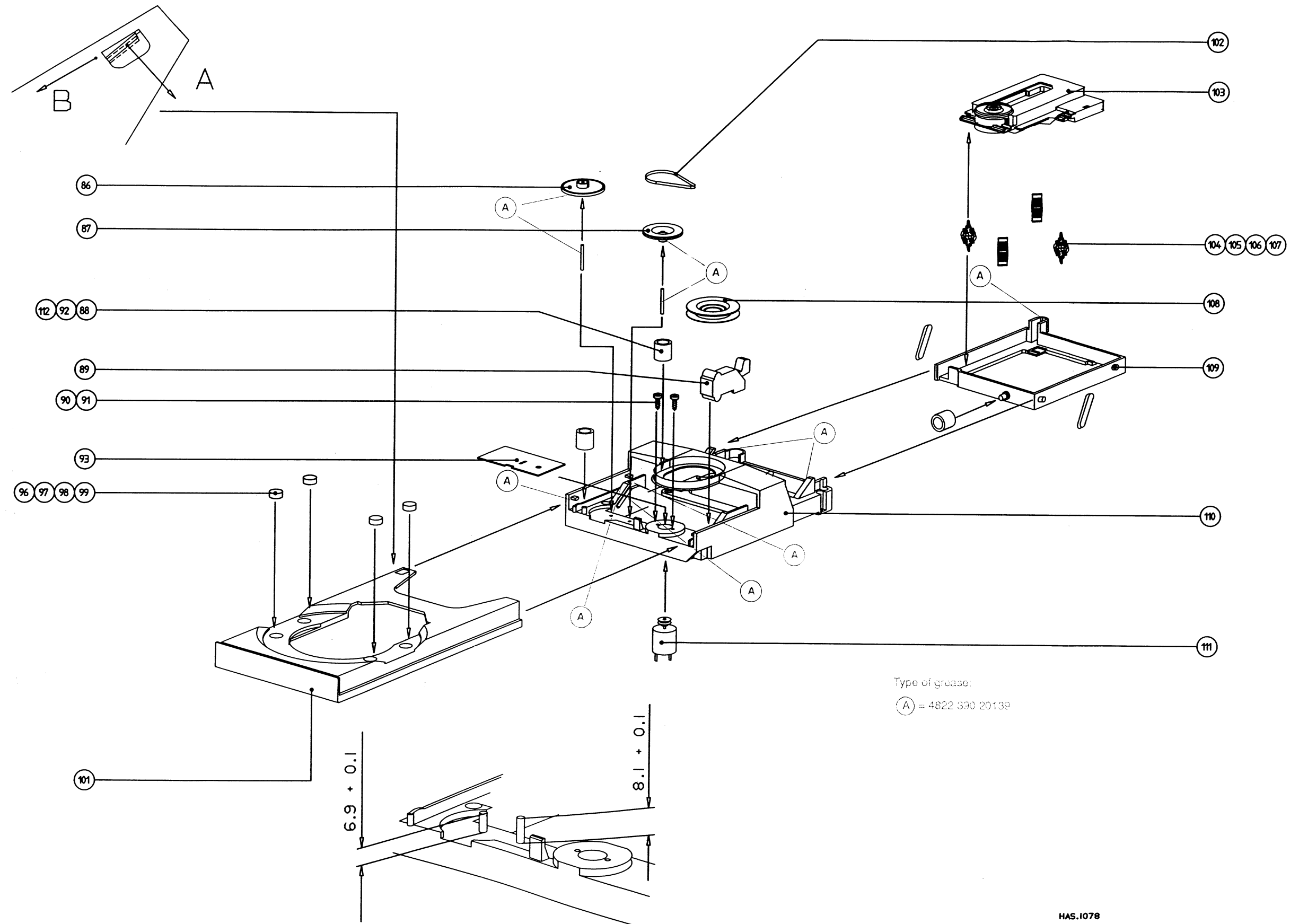


CD EXPLODED VIEW

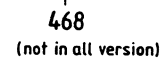
67

68

DETAIL I

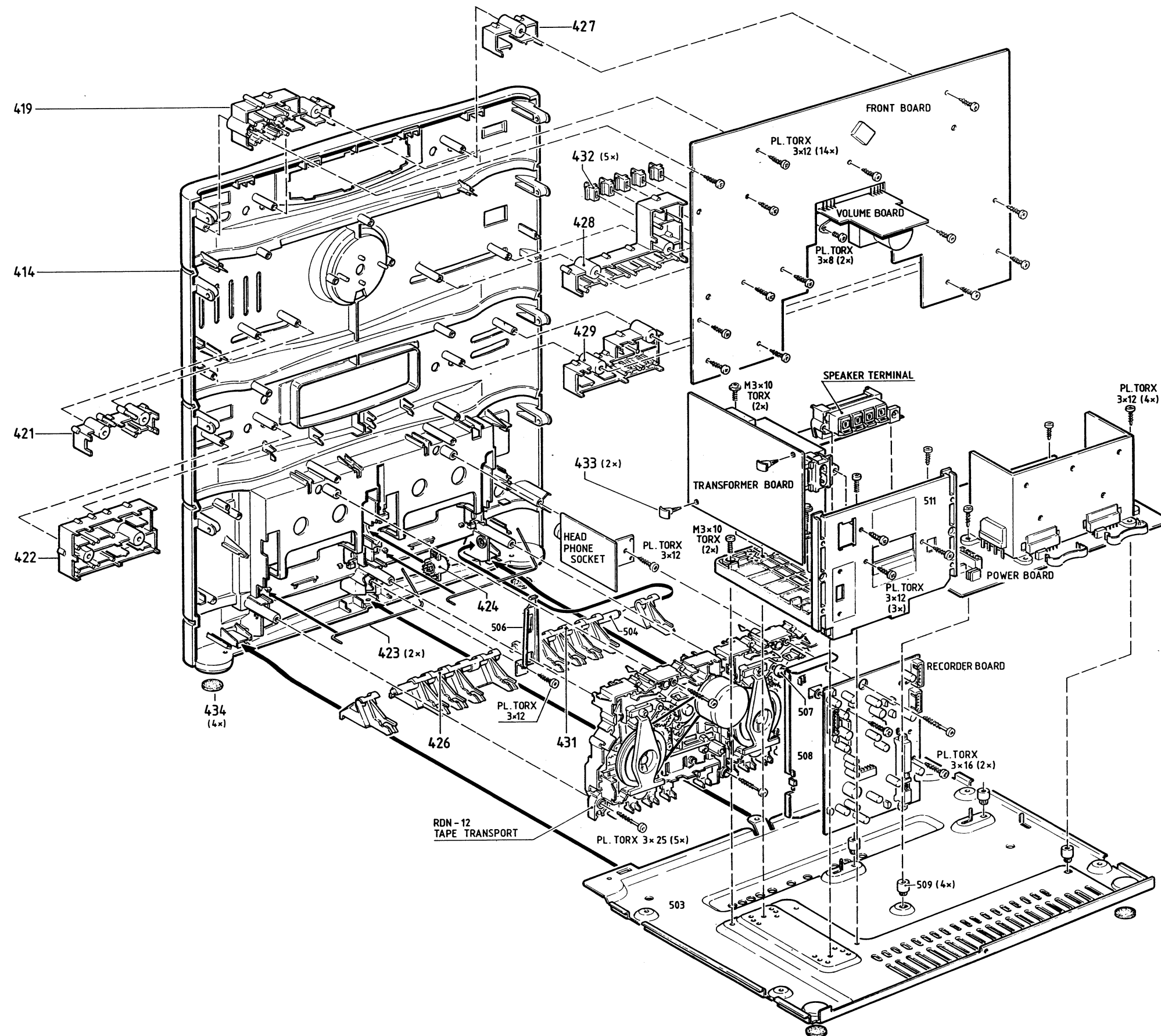


mal service parts.



| | | |
|---------|----------------|--------------------|
| 401 | 4822 426 30153 | SIDE LEFT |
| 402 | 4822 443 63936 | CASS. DOOR A-DECK |
| 403 | 4822 450 62087 | WINDOW A-DECK |
| 404 | 4822 450 62088 | WINDOW B-DECK |
| 406 | 4822 443 63977 | CASS. DOOR B-DECK |
| | | |
| 407 | 4822 492 63927 | SPRING CASS. PRESS |
| 408 | 4822 443 63037 | DOOR CASSETTE |
| 409 | 4822 413 41792 | VOLUME KNOB |
| 411 | 4822 492 51374 | SPRING KNOB CLAMP |
| 412 | 4822 381 11418 | IR WINDOW |
| | | |
| 413 | 4822 450 62074 | WINDOW PRINTED |
| 414 | 4822 426 51662 | FRONT PRINTED |
| 415 | 4822 444 40661 | TRAY FRONT |
| PRINTED | | |
| 416 | 4822 426 60639 | COVER |
| 417 | 4822 426 20241 | BACKPLATE |
| | | |
| 418 | 4822 426 30152 | SIDE RIGHT |
| 468 | 4822 413 31758 | KNOB BALANCE |

EXPLODED VIEW OF SET II



MECHANICAL PARTS

| | | |
|-----|----------------|--------------------------|
| 414 | 4822 426 51662 | FRONT PRINTED |
| 418 | 4822 426 30152 | SIDE RIGHT |
| 419 | 4822 410 62618 | KNOB PRESET UP/DOWN |
| 421 | 4822 410 62722 | KNOB HSD+DOLBY+CROME |
| 422 | 4822 410 62626 | KNOB CD RIGHT |
| 423 | 4822 429 42595 | SPRING CASS. COMPARTMENT |
| 424 | 4822 529 10287 | DAMPER |
| 426 | 4822 410 62619 | BUTTON SET |
| 427 | 4822 410 62623 | KNOB AUTOPROGRAM |
| 428 | 4822 410 62617 | KNOB SELECTOR+POWER |
| 429 | 4822 410 62724 | KNOB CD LEFT |
| 431 | 4822 410 62621 | BUTTON SET |
| 432 | 4822 411 61929 | KNOB EQUALIZER |
| 433 | 4822 466 93148 | SPACER |
| 434 | 4822 462 40683 | RUBBER FOOT |

FRONT BOARD

MISCELLANEOUS

| | | |
|------|----------------|---------------------|
| 1408 | 4822 267 30631 | CINCH SOCKET |
| 1410 | 4822 267 40659 | HEADPHONE SOCKET |
| 1415 | 4822 130 91245 | FTD-11894 |
| 1416 | 4822 134 40965 | LAMP INC. 12V 150mA |
| 1417 | 4822 134 40965 | LAMP INC. 12V 150mA |

| | | |
|------|----------------|-------------|
| 1420 | 4822 276 13114 | TACT SWITCH |
| 1421 | 4822 276 13114 | TACT SWITCH |
| 1422 | 4822 276 13114 | TACT SWITCH |
| 1423 | 4822 276 13114 | TACT SWITCH |
| 1424 | 4822 276 13114 | TACT SWITCH |

| | | |
|------|----------------|-------------|
| 1425 | 4822 276 13114 | TACT SWITCH |
| 1426 | 4822 276 13114 | TACT SWITCH |
| 1427 | 4822 276 13114 | TACT SWITCH |
| 1428 | 4822 276 13114 | TACT SWITCH |
| 1429 | 4822 276 13114 | TACT SWITCH |

| | | |
|------|----------------|-------------|
| 1430 | 4822 276 13114 | TACT SWITCH |
| 1431 | 4822 276 13114 | TACT SWITCH |
| 1432 | 4822 276 13114 | TACT SWITCH |
| 1433 | 4822 276 13114 | TACT SWITCH |
| 1434 | 4822 276 13114 | TACT SWITCH |

| | | |
|------|----------------|-------------|
| 1435 | 4822 276 13114 | TACT SWITCH |
| 1436 | 4822 276 13114 | TACT SWITCH |
| 1437 | 4822 276 13114 | TACT SWITCH |
| 1438 | 4822 276 13114 | TACT SWITCH |
| 1439 | 4822 276 13114 | TACT SWITCH |

| | | |
|------|----------------|-------------|
| 1440 | 4822 276 13114 | TACT SWITCH |
| 1442 | 4822 276 13114 | TACT SWITCH |
| 1443 | 4822 276 13114 | TACT SWITCH |
| 1444 | 4822 276 13114 | TACT SWITCH |
| 1445 | 4822 276 13114 | TACT SWITCH |

| | | |
|------|----------------|-------------|
| 1446 | 4822 276 13114 | TACT SWITCH |
| 1447 | 4822 276 13114 | TACT SWITCH |
| 1448 | 4822 276 13114 | TACT SWITCH |
| 1475 | 4822 276 13114 | TACT SWITCH |

DIODES

| | | |
|------|----------------|--------|
| 6401 | 4822 130 30621 | 1N4148 |
| 6402 | 4822 130 30621 | 1N4148 |
| 6403 | 4822 130 30621 | 1N4148 |
| 6404 | 4822 130 30621 | 1N4148 |
| 6405 | 4822 130 30621 | 1N4148 |

| | | |
|------|----------------|--------|
| 6406 | 4822 130 30621 | 1N4148 |
| 6407 | 4822 130 30621 | 1N4148 |
| 6408 | 4822 130 30621 | 1N4148 |
| 6409 | 4822 130 30621 | 1N4148 |
| 6410 | 4822 130 30621 | 1N4148 |

| | | |
|------|----------------|--------|
| 6411 | 4822 130 30621 | 1N4148 |
| 6412 | 4822 130 30621 | 1N4148 |
| 6413 | 4822 130 30621 | 1N4148 |
| 6414 | 4822 130 30621 | 1N4148 |
| 6415 | 4822 130 30621 | 1N4148 |

| | | |
|------|----------------|--------|
| 6416 | 4822 130 30621 | 1N4148 |
| 6418 | 4822 130 30621 | 1N4148 |
| 6419 | 4822 130 30621 | 1N4148 |
| 6420 | 4822 130 30621 | 1N4148 |
| 6421 | 4822 130 30621 | 1N4148 |

DIODES

| | | |
|------|----------------|-----------------|
| 6422 | 4822 130 30621 | 1N4148 |
| 6423 | 4822 130 30621 | 1N4148 |
| 6424 | 4822 130 30621 | 1N4148 |
| 6425 | 4822 130 30621 | 1N4148 |
| 6427 | 4822 130 34174 | BZX79-C4V7 |
| 6428 | 4822 130 34197 | BZX79-C12 (UAW) |
| 6431 | 4822 130 34174 | BZX79-C4V7 |
| 6442 | 4822 130 82021 | LTL307G |
| 6450 | 4822 130 30861 | BZX79-C7V5 |
| 6453 | 4822 130 30621 | 1N4148 |
| 6455 | 4822 130 30621 | 1N4148 |
| 6456 | 4822 130 30621 | 1N4148 |

TRANSISTORS

| | | |
|------|----------------|----------|
| 7406 | 4822 130 40941 | BC558 |
| 7408 | 4822 130 40938 | BC548 |
| 7409 | 4822 130 41344 | BC337-40 |
| 7410 | 4822 130 41344 | BC337-40 |
| 7411 | 4822 130 41344 | BC337-40 |
| 7412 | 4822 130 41344 | BC337-40 |
| 7413 | 4822 130 40938 | BC548 |
| 7421 | 4822 130 44196 | BC548C |
| 7423 | 4822 130 40941 | BC558 |
| 7424 | 4822 130 41327 | BC327-40 |

| | | |
|------|----------------|----------|
| 7426 | 4822 130 40941 | BC558 |
| 7427 | 4822 130 40938 | BC548 |
| 7430 | 4822 130 40938 | BC548 |
| 7445 | 5322 130 44779 | BC338-40 |
| 7446 | 5322 130 44779 | BC338-40 |

| | | |
|------|----------------|--------|
| 7447 | 4822 130 44246 | BC549C |
| 7448 | 4822 130 44246 | BC549C |

INTEGRATED CIRCUITS

| | | |
|------|----------------|------------|
| 7403 | 4822 209 83274 | NJM4560D |
| 7407 | 4822 209 83274 | NJM4560D |
| 7415 | 4822 209 32392 | TMP87PH20F |
| 7418 | 4822 209 31508 | ST24C01 |
| 7419 | 5322 209 10421 | HEF4094BP |

| | | |
|------|----------------|-----------|
| 7420 | 5322 209 10421 | HEF4094BP |
| 7422 | 4822 214 52009 | GP1U58XP |
| 7425 | 4822 209 80891 | MC7805CT |

COILS

| | | |
|------|----------------|-----------------|
| 5401 | 5322 242 73697 | CERAM.RES. 8MHz |
| 5402 | 4822 157 50961 | 22μH |
| 5405 | 4822 157 62552 | COIL 2,2μH |

RESISTORS

| | | | | |
|------|----------------|-----|----|------|
| 3401 | 4822 116 52297 | 68k | 5% | 0,5W |
| 3402 | 4822 116 52297 | 68k | 5% | 0,5W |
| 3403 | 4822 116 52264 | 27k | 5% | 0,5W |
| 3404 | 4822 116 52264 | 27k | 5% | 0,5W |
| 3405 | 4822 116 52284 | 47k | 5% | 0,5W |

RESISTORS

| | | | | |
|------|----------------|------|----|-------|
| 3406 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3407 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3408 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3409 | 4822 116 52291 | 56k | 5% | 0,5W |
| 3410 | 4822 116 52291 | 56k | 5% | 0,5W |
| 3411 | 4822 116 52243 | 1k5 | 5% | 0,16W |
| 3412 | 4822 116 52243 | 1k5 | 5% | 0,16W |
| 3413 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3414 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3415 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3416 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3417 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3418 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3419 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3420 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3421 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3422 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3423 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3424 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3425 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3426 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3427 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3428 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3431 | 4822 116 52263 | 2k7 | 5% | 0,5W |
| 3432 | 4822 116 52263 | 2k7 | 5% | 0,5W |
| 3433 | 4822 116 52276 | 3k9 | 5% | 0,5W |
| 3434 | 4822 116 52276 | 3k9 | 5% | 0,5W |
| 3435 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3436 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3437 | 4822 116 52251 | 18k | 5% | 0,5W |
| 3438 | 4822 116 52251 | 18k | 5% | 0,5W |
| 3439 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3440 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3441 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3442 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3443 | 4822 116 52291 | 56k | 5% | 0,5W |
| 3444 | 4822 116 52291 | 56k | 5% | 0,5W |
| 3445 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3446 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3447 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3448 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3449 | 4822 116 52264 | 27k | 5% | 0,5W |
| 3450 | 4822 116 52264 | 27k | 5% | 0,5W |
| 3451 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3452 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3455 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3456 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3457 | 4822 116 52264 | 27k | 5% | 0,5W |
| 3458 | 4822 116 52264 | 27k | 5% | 0,5W |
| 3459 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3460 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3461 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3462 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3463 | 4822 116 52285 | 470k | 5% | 0,5W |
| 3464 | 4822 116 52285 | 470k | 5% | 0,5W |
| 3465 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3466 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3469 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3470 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3471 | 4822 116 52256 | 2k2 | 5% | 0,16W |

RESISTORS

| | | | | |
|------|----------------|-------------|----|-------|
| 3472 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3473 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3474 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3475 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3476 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3477 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3478 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3479 | 4822 101 21235 | Pot 20k lin | | |
| 3480 | 4822 102 10414 | Pot 2x20kB | | |
| 3481 | 4822 101 21102 | Pot 2x 50k | | |
| 3482 | 4822 101 21102 | Pot 2x 50k | | |
| 3483 | 4822 101 21102 | Pot 2x 50k | | |
| 3484 | 4822 101 21102 | Pot 2x 50k | | |
| 3485 | 4822 101 21102 | Pot 2x 50k | | |
| 3486 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3487 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3488 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3489 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3490 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3491 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3492 | 4822 116 52228 | 680R | 5% | 0,5W |
| 3493 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3494 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3495 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3496 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3497 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3498 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3499 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3500 | 4822 116 52217 | 270R | 5% | 0,5W |
| 3501 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3502 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3503 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3504 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3505 | 4822 116 52251 | 18k | 5% | 0,5W |
| 3506 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3507 | 4822 116 52217 | 270R | 5% | 0,5W |
| 3508 | 4822 116 52217 | 270R | 5% | 0,5W |
| 3516 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3517 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3526 | 4822 116 52228 | 680R | 5% | 0,5W |
| 3528 | 4822 116 52304 | 82k | 5% | 0,5W |
| 3530 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3531 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3532 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3533 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3534 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3535 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3536 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3537 | 4822 116 52217 | 270R | 5% | 0,5W |
| 3538 | 4822 116 52217 | 270R | 5% | 0,5W |
| 3539 | 4822 116 52217 | 270R | 5% | 0,5W |
| 3540 | 4822 116 52258 | 220k | 5% | 0,5W |
| 3552 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3554 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3555 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3556 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3557 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3558 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3559 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3560 | 4822 116 52283 | 4k7 | 5% | 0,5W |

RESISTORS

| | | | | |
|------|----------------|------|----|-------|
| 3562 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3563 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3564 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3565 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3568 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3569 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3570 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3571 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3585 | 4822 116 52249 | 1k8 | 5% | 0,16W |
| 3586 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3587 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3589 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3590 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3591 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3592 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3593 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3594 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3595 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3596 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3597 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3598 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3601 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3602 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3603 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3604 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3605 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3606 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3607 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3608 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3609 | 4822 116 52296 | 6k8 | 5% | 0,5W |
| 3610 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3612 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3613 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3615 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3616 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3617 | 4822 116 52228 | 680R | 5% | 0,5W |
| 3618 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3620 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3621 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3622 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3623 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3624 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3649 | 4822 050 22205 | 2M2 | 1% | 0,6W |
| 3650 | 4822 050 22205 | 2M2 | 1% | 0,6W |
| 3651 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3652 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3653 | 4822 116 52235 | 1M | 5% | 0,5W |
| 3654 | 4822 116 52235 | 1M | 5% | 0,5W |
| 3655 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3660 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3661 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3662 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3663 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3664 | 4822 116 52228 | 680R | 5% | 0,5W |
| 3665 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3666 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3667 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3668 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3672 | 4822 050 11002 | 1k | 5% | 0,2W |

CAPACITORS

| | | | | |
|------|----------------|--------|-----|------|
| 2401 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2402 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2403 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2404 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2405 | 4822 124 40239 | 0,47μF | 20% | 63V |
| | | | | |
| 2406 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2407 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2408 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2409 | 4822 122 33848 | 47pF | 5% | 50V |
| 2410 | 4822 122 33848 | 47pF | 5% | 50V |
| | | | | |
| 2411 | 4822 122 33848 | 47pF | 5% | 50V |
| 2412 | 4822 122 33848 | 47pF | 5% | 50V |
| 2413 | 4822 122 33848 | 47pF | 5% | 50V |
| 2414 | 4822 122 33848 | 47pF | 5% | 50V |
| 2415 | 4822 122 33848 | 47pF | 5% | 50V |
| | | | | |
| 2416 | 4822 122 33848 | 47pF | 5% | 50V |
| 2417 | 4822 126 12702 | 270pF | 10% | 50V |
| 2418 | 4822 126 12702 | 270pF | 10% | 50V |
| 2419 | 4822 122 33195 | 100pF | 10% | 50V |
| 2420 | 4822 122 33195 | 100pF | 10% | 50V |
| | | | | |
| 2421 | 4822 122 33848 | 47pF | 5% | 50V |
| 2422 | 4822 122 33848 | 47pF | 5% | 50V |
| 2425 | 4822 122 33195 | 100pF | 10% | 50V |
| 2426 | 4822 122 33195 | 100pF | 10% | 50V |
| 2427 | 4822 124 40242 | 1μF | 20% | 63V |
| | | | | |
| 2428 | 4822 124 40242 | 1μF | 20% | 63V |
| 2429 | 4822 126 12702 | 270pF | 10% | 50V |
| 2430 | 4822 126 12702 | 270pF | 10% | 50V |
| 2431 | 4822 122 33197 | 1nF | 10% | 50V |
| 2432 | 4822 122 33197 | 1nF | 10% | 50V |
| | | | | |
| 2433 | 4822 122 33197 | 1nF | 10% | 50V |
| 2434 | 4822 122 33197 | 1nF | 10% | 50V |
| 2435 | 4822 126 11714 | 4,7nF | 20% | |
| 2436 | 4822 126 11714 | 4,7nF | 20% | |
| 2437 | 4822 126 11714 | 4,7nF | 20% | |
| | | | | |
| 2438 | 4822 126 11714 | 4,7nF | 20% | |
| 2439 | 4822 126 11585 | 22nF | 50V | |
| 2440 | 4822 126 11585 | 22nF | 50V | |
| 2441 | 4822 126 11585 | 22nF | 50V | |
| 2442 | 4822 126 11585 | 22nF | 50V | |
| | | | | |
| 2443 | 4822 121 43526 | 47nF | 5% | 100V |
| 2444 | 4822 121 43526 | 47nF | 5% | 100V |
| 2445 | 4822 121 42408 | 220nF | 5% | 63V |
| 2446 | 4822 121 42408 | 220nF | 5% | 63V |
| 2449 | 4822 122 33195 | 100pF | 10% | 50V |
| | | | | |
| 2450 | 4822 122 33195 | 100pF | 10% | 50V |
| 2451 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2452 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2453 | 4822 121 51387 | 10nF | 20% | 16V |
| 2454 | 4822 121 51387 | 10nF | 20% | 16V |
| | | | | |
| 2455 | 4822 122 33192 | 27pF | 5% | 50V |
| 2456 | 4822 122 33192 | 27pF | 5% | 50V |
| 2460 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2461 | 4822 126 11585 | 22nF | | 50V |
| 2462 | 4822 126 11585 | 22nF | | 50V |
| | | | | |
| 2463 | 4822 126 11585 | 22nF | | 50V |
| 2464 | 4822 124 41525 | 100μF | 20% | 25V |
| 2465 | 4822 124 22263 | 220μF | 20% | 25V |
| 2466 | 4822 124 40248 | 10μF | 20% | 63V |
| 2468 | 4822 124 40248 | 10μF | 20% | 63V |

CAPACITORS

| | | | | |
|------|----------------|-------|-----|-----|
| 2469 | 4822 124 40242 | 1µF | 20% | 63V |
| 2470 | 4822 124 40242 | 1µF | 20% | 63V |
| 2471 | 4822 122 33519 | 470pF | 10% | 50V |
| 2472 | 4822 122 33519 | 470pF | 10% | 50V |
| 2473 | 4822 124 40433 | 47µF | 20% | 25V |
| 2475 | 4822 124 22263 | 220µF | 20% | 25V |
| 2476 | 4822 124 41525 | 100µF | 20% | 25V |
| 2477 | 4822 124 40433 | 47µF | 20% | 25V |
| 2483 | 4822 122 33197 | 1nF | 10% | 50V |
| 2484 | 4822 122 33197 | 1nF | 10% | 50V |
| 2485 | 4822 122 33197 | 1nF | 10% | 50V |
| 2502 | 4822 124 41525 | 100µF | 20% | 25V |
| 2503 | 4822 124 41525 | 100µF | 20% | 25V |
| 2504 | 5322 124 21643 | 22µF | 20% | 40V |
| 2505 | 4822 126 11585 | 22nF | | 50V |
| 2507 | 4822 126 12702 | 270pF | 10% | 50V |
| 2510 | 4822 122 33848 | 47pF | 5% | 50V |
| 2512 | 4822 124 40242 | 1µF | 20% | 63V |
| 2513 | 4822 124 40248 | 10µF | 20% | 63V |
| 2514 | 4822 126 12702 | 270pF | 10% | 50V |
| 2552 | 4822 122 10466 | 220pF | 10% | |
| 2553 | 4822 122 10466 | 220pF | 10% | |
| 2554 | 4822 122 33197 | 1nF | 10% | 50V |
| 2555 | 4822 122 33197 | 1nF | 10% | 50V |
| 2556 | 4822 122 33195 | 100pF | 10% | 50V |
| 2557 | 4822 122 33195 | 100pF | 10% | 50V |
| 2558 | 5322 121 42386 | 100nF | 5% | 63V |

POWER BOARD

MECHANICAL PARTS

| | |
|----------------|------------|
| 4822 255 40128 | CLIP TO126 |
| 5322 255 40397 | CLIP IC |

MISCELLANEOUS

| | | |
|------|----------------|--------------------|
| 1304 | 4822 267 31176 | SPEAKER TERMINAL |
| 1305 | 4822 264 30175 | SOCKET EXT. SUPPLY |

DIODES

| | | |
|------|----------------|------------|
| 6250 | 4822 130 82079 | D3SBA20 |
| 6251 | 4822 130 30621 | 1N4148 |
| 6252 | 4822 130 30621 | 1N4148 |
| 6253 | 4822 130 34174 | BZX79-C4V7 |
| 6254 | 4822 130 30621 | 1N4148 |

| | | |
|------|----------------|--------|
| 6255 | 5322 130 30684 | 1N4002 |
| 6256 | 5322 130 30684 | 1N4002 |
| 6257 | 5322 130 30684 | 1N4002 |
| 6258 | 5322 130 30684 | 1N4002 |
| 6259 | 4822 130 30621 | 1N4148 |

| | | |
|------|----------------|------------|
| 6261 | 5322 130 30684 | 1N4002 |
| 6350 | 4822 130 30621 | 1N4148 |
| 6351 | 4822 130 30621 | 1N4148 |
| 6352 | 4822 130 34278 | BZX79-C6V8 |
| 6354 | 4822 130 30621 | 1N4148 |

| | | |
|------|----------------|------------------|
| 1006 | 4822 130 83092 | LED (Volume pot) |
|------|----------------|------------------|

TRANSISTORS

| | | |
|------|----------------|--------|
| 7250 | 4822 130 40937 | BC548B |
| 7252 | 4822 130 61236 | BD234 |
| 7253 | 4822 130 40937 | BC548B |
| 7254 | 4822 130 40937 | BC548B |
| 7255 | 4822 130 44197 | BC558B |

| | | |
|------|----------------|----------|
| 7309 | 4822 130 41344 | BC337-40 |
| 7310 | 4822 130 41344 | BC337-40 |
| 7311 | 4822 130 41344 | BC337-40 |
| 7312 | 4822 130 41344 | BC337-40 |
| 7350 | 4822 130 41344 | BC337-40 |

| | | |
|------|----------------|--------|
| 7351 | 4822 130 40937 | BC548B |
| 7352 | 4822 130 40937 | BC548B |

INTEGRATED CIRCUITS

| | | |
|------|----------------|-------------|
| 7313 | 4822 209 73356 | AN7161N(FP) |
| 7314 | 4822 209 73356 | AN7161N(FP) |

COILS

| | | |
|------|----------------|------------|
| 5309 | 4822 157 62552 | COIL 2,2µH |
| 5311 | 4822 157 62552 | COIL 2,2µH |
| 5312 | 4822 157 62552 | COIL 2,2µH |
| 5315 | 4822 157 62552 | COIL 2,2µH |
| 5316 | 4822 157 62552 | COIL 2,2µH |

RESISTORS

| | | | | |
|------|----------------|-----|----|-------|
| 3250 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3251 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3252 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3254 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3255 | 4822 050 11002 | 1k | 5% | 0,2W |

| | | | | |
|------|----------------|-----|----|-------|
| 3256 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3257 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3258 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3259 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3260 | 4822 116 52233 | 10k | 5% | 0,5W |

| | | | | |
|------|----------------|------|----|-------|
| 3261 | 4822 116 52291 | 56k | 5% | 0,5W |
| 3262 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3263 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3264 | 4822 116 52217 | 270R | 5% | 0,5W |
| 3307 | 4822 116 52256 | 2k2 | 5% | 0,16W |

| | | | | |
|------|----------------|-----|----|-------|
| 3308 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3309 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3310 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3311 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3312 | 4822 050 11002 | 1k | 5% | 0,2W |

| | | | | |
|------|----------------|------|----|-------|
| 3313 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3314 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3315 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3316 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3317 | 4822 116 52213 | 180R | 5% | 0,5W |

| | | | | |
|------|----------------|------|----|-------|
| 3318 | 4822 116 52213 | 180R | 5% | 0,5W |
| 3319 | 4822 052 10228 | 2R2 | 5% | 0,33W |
| 3320 | 4822 052 10228 | 2R2 | 5% | 0,33W |
| 3321 | 4822 052 10228 | 2R2 | 5% | 0,33W |
| 3322 | 4822 052 10228 | 2R2 | 5% | 0,33W |

| | | | | |
|------|----------------|------|----|------|
| 3323 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3324 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3325 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3326 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3350 | 4822 052 10479 | 47R | 5% | 0,3W |

| | | | | |
|------|----------------|------|----|------|
| 3351 | 4822 116 52276 | 3k9 | 5% | 0,5W |
| 3352 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3353 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3354 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3355 | 4822 116 52217 | 270R | 5% | 0,5W |

CAPACITORS

| | | | | |
|------|----------------|--------|-----|------|
| 2250 | 5322 121 42578 | 100nF | 10% | 100V |
| 2251 | 5322 121 42386 | 100nF | 5% | 63V |
| 2252 | 5322 121 42386 | 100nF | 5% | 63V |
| 2253 | 4822 124 41995 | 6800µF | | 25V |
| 2254 | 4822 124 40242 | 1µF | 20% | 63V |

| | | | | |
|------|----------------|-------|-----|------|
| 2255 | 4822 122 33197 | 1nF | 10% | 50V |
| 2256 | 4822 126 11585 | 22nF | | 50V |
| 2257 | 5322 121 42578 | 100nF | 10% | 100V |
| 2258 | 5322 121 42386 | 100nF | 5% | 63V |
| 2259 | 5322 121 42386 | 100nF | 5% | 63V |

| | | | | |
|------|----------------|--------|-----|-----|
| 2260 | 4822 124 22412 | 2200µF | 20% | 16V |
| 2261 | 4822 124 40201 | 1000µF | 20% | 16V |
| 2262 | 4822 124 41525 | 100µF | 20% | 25V |
| 2265 | 4822 124 41994 | 3300µF | 20% | 16V |
| 2266 | 4822 122 33197 | 1nF | 10% | 50V |

CAPACITORS

| | | | | |
|------|----------------|-------|-----|------|
| 2267 | 4822 122 33197 | 1nF | 10% | 50V |
| 2311 | 4822 124 40242 | 1µF | 20% | 63V |
| 2312 | 4822 124 40242 | 1µF | 20% | 63V |
| 2315 | 5322 121 42489 | 33nF | 5% | 100V |
| 2316 | 5322 121 42489 | 33nF | 5% | 100V |
| 2317 | 4822 124 40242 | 1µF | 20% | 63V |
| 2318 | 4822 124 40242 | 1µF | 20% | 63V |
| 2319 | 4822 124 40433 | 47µF | 20% | 25V |
| 2320 | 4822 124 40433 | 47µF | 20% | 25V |
| 2323 | 4822 126 12795 | 1,8nF | 5% | 16V |
| 2324 | 4822 126 12795 | 1,8nF | 5% | 16V |
| 2325 | 4822 124 40196 | 220µF | 20% | 16V |
| 2326 | 4822 124 40196 | 220µF | 20% | 16V |
| 2329 | 5322 124 41431 | 22µF | 20% | 25V |
| 2330 | 5322 124 41431 | 22µF | 20% | 25V |
| 2333 | 4822 124 40433 | 47µF | 20% | 25V |
| 2334 | 4822 124 40433 | 47µF | 20% | 25V |
| 2335 | 4822 124 40433 | 47µF | 20% | 25V |
| 2336 | 4822 124 40433 | 47µF | 20% | 25V |
| 2337 | 4822 121 42408 | 220nF | 5% | 63V |
| 2338 | 4822 121 42408 | 220nF | 5% | 63V |
| 2339 | 4822 121 42408 | 220nF | 5% | 63V |
| 2340 | 4822 121 42408 | 220nF | 5% | 63V |
| 2350 | 4822 124 41525 | 100µF | 20% | 25V |
| 2351 | 5322 121 42386 | 100nF | 5% | 63V |
| 2352 | 5322 121 42386 | 100nF | 5% | 63V |
| 2353 | 5322 121 42386 | 100nF | 5% | 63V |
| 2354 | 4822 124 40242 | 1µF | 20% | 63V |
| 2357 | 4822 124 40435 | 10µF | 20% | 50V |
| 2361 | 4822 121 51387 | 10nF | 20% | 16V |
| 2362 | 4822 121 51387 | 10nF | 20% | 16V |

CHIP CAPACITORS

| | | | |
|------|----------------|-------|-----|
| 2355 | 4822 126 12519 | 330pF | 10% |
| 2356 | 4822 126 12519 | 330pF | 10% |

TRAFO BOARD

MISCELLANEOUS

| | | |
|------|----------------|----------------------|
| 1250 | 4822 071 55002 | FUSE T5A |
| 1251 | 4822 071 56301 | Fuse T 630mA/250V |
| 1252 | 4822 071 56301 | Fuse T 630mA/250V |
| 1255 | 4822 265 31015 | MAINS SOCKET |
| 5250 | 4822 146 31256 | TRANSFORMER /20, /22 |
| 5250 | 4822 146 31246 | TRANSFORMER /25 |

COILS

| | | |
|------|----------------|--------------------|
| 5251 | 4822 157 70003 | COIL, MAINS FILTER |
|------|----------------|--------------------|

DOLBY BOARD

DIODES

| | | |
|------|----------------|--------|
| 6706 | 4822 130 30621 | 1N4148 |
| 6707 | 4822 130 30621 | 1N4148 |
| 6708 | 4822 130 30621 | 1N4148 |
| 6709 | 4822 130 30621 | 1N4148 |

TRANSISTORS

| | | |
|------|----------------|----------|
| 7641 | 4822 130 44196 | BC548C |
| 7642 | 4822 130 44196 | BC548C |
| 7653 | 4822 130 60588 | DTC114ES |
| 7706 | 4822 130 60588 | DTC114ES |
| 7744 | 4822 130 60588 | DTC114ES |
| 7745 | 4822 130 60588 | DTC114ES |
| 7746 | 4822 130 60588 | DTC114ES |
| 7750 | 4822 130 41344 | BC337-40 |
| 7751 | 4822 130 42682 | DTA144ES |
| 7752 | 4822 130 44196 | BC548C |
| 7753 | 4822 130 60588 | DTC114ES |
| 7754 | 4822 130 44196 | BC548C |
| 7760 | 4822 130 41344 | BC337-40 |
| 7763 | 4822 130 42682 | DTA144ES |
| 7764 | 4822 130 60588 | DTC114ES |
| 7765 | 4822 130 60588 | DTC114ES |
| 7767 | 4822 130 44196 | BC548C |
| 7768 | 4822 130 44196 | BC548C |
| 7776 | 4822 130 60588 | DTC114ES |
| 7781 | 4822 130 60588 | DTC114ES |
| 7782 | 4822 130 60588 | DTC114ES |
| 7783 | 4822 130 60588 | DTC114ES |
| 7785 | 4822 130 60588 | DTC114ES |
| 7792 | 4822 130 44197 | BC558B |
| 7797 | 4822 130 41344 | BC337-40 |

INTEGRATED CIRCUITS

| | | |
|------|----------------|------------|
| 7635 | 4822 209 30498 | HA12134A |
| 7700 | 4822 209 70288 | UPC1313HA |
| 7701 | 4822 209 70288 | UPC1313HA |
| 7702 | 5322 209 14865 | MC14066BCP |
| 7703 | 5322 209 14865 | MC14066BCP |
| 7704 | 4822 209 61667 | UPC1330HA |
| 7770 | 4822 209 31505 | CXA1298AP |

COILS

| | | |
|------|----------------|--------------------|
| 5635 | 4822 242 73768 | MPX-FILTER |
| 5636 | 4822 242 73768 | MPX-FILTER |
| 5673 | 4822 156 20811 | COIL 36µH |
| 5674 | 4822 156 20811 | COIL 36µH |
| 5760 | 4822 157 70695 | OSC. COIL (100kHz) |

RESISTORS

| | | | | |
|------|----------------|------|----|------|
| 3635 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3636 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3637 | 4822 116 52285 | 470k | 5% | 0,5W |
| 3638 | 4822 116 52285 | 470k | 5% | 0,5W |
| 3639 | 4822 116 52284 | 47k | 5% | 0,5W |

RESISTORS

| | | | | |
|------|----------------|------------------|----|-------|
| 3640 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3641 | 4822 116 52243 | 1k5 | 5% | 0,16W |
| 3642 | 4822 116 52243 | 1k5 | 5% | 0,16W |
| 3643 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3644 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3645 | 4822 116 52289 | 5k6 | 5% | 0,16W |
| 3646 | 4822 116 52289 | 5k6 | 5% | 0,16W |
| 3647 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3648 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3649 | 4822 116 52251 | 18k | 5% | 0,5W |
| 3650 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3651 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3652 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3653 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3655 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3656 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3657 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3658 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3659 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3660 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3661 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3662 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3663 | 4822 116 52289 | 5k6 | 5% | 0,16W |
| 3664 | 4822 116 52289 | 5k6 | 5% | 0,16W |
| 3665 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3666 | 4822 116 52289 | 5k6 | 5% | 0,16W |
| 3667 | 4822 100 11771 | POTMETER 20k LIN | | |
| 3668 | 4822 100 11771 | POTMETER 20k LIN | | |
| 3671 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3672 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3673 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3674 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3675 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3676 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3677 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3678 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3679 | 4822 116 52251 | 18k | 5% | 0,5W |
| 3697 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3698 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3699 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3700 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3701 | 4822 116 52231 | 820R | 5% | 0,5W |
| 3702 | 4822 116 52231 | 820R | 5% | 0,5W |
| 3703 | 4822 116 52265 | 270k | 5% | 0,5W |
| 3704 | 4822 116 52265 | 270k | 5% | 0,5W |
| 3705 | 4822 116 52238 | 12k | 5% | 0,5W |
| 3706 | 4822 116 52238 | 12k | 5% | 0,5W |
| 3707 | 4822 116 52195 | 47R | 5% | 0,5W |
| 3708 | 4822 116 52195 | 47R | 5% | 0,5W |
| 3709 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3710 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3711 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3712 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3713 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3717 | 4822 116 52224 | 470R | 5% | 0,5W |

RESISTORS

| | | | | |
|------|----------------|-------------------|----|-------|
| 3718 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3719 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3720 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3721 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3722 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3723 | 4822 116 52265 | 270k | 5% | 0,5W |
| 3724 | 4822 116 52265 | 270k | 5% | 0,5W |
| 3725 | 4822 116 52238 | 12k | 5% | 0,5W |
| 3726 | 4822 116 52238 | 12k | 5% | 0,5W |
| 3727 | 4822 116 52195 | 47R | 5% | 0,5W |
| 3728 | 4822 116 52195 | 47R | 5% | 0,5W |
| 3729 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3730 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3731 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3732 | 4822 116 52269 | 3k3 | 5% | 0,5W |
| 3733 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3734 | 4822 116 52228 | 680R | 5% | 0,5W |
| 3736 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3737 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3738 | 4822 116 52228 | 680R | 5% | 0,5W |
| 3743 | 4822 116 52303 | 8k2 | 5% | 0,5W |
| 3744 | 4822 116 52303 | 8k2 | 5% | 0,5W |
| 3745 | 4822 116 52231 | 820R | 5% | 0,5W |
| 3746 | 4822 116 52231 | 820R | 5% | 0,5W |
| 3747 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3751 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3752 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3753 | 4822 116 52263 | 2k7 | 5% | 0,5W |
| 3754 | 4822 116 52207 | 1k2 | 5% | 0,5W |
| 3755 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3756 | 4822 100 11771 | POTMETER 20k LIN | | |
| 3757 | 4822 052 10478 | 4R7 | 5% | NFR |
| 3758 | 4822 116 52191 | 33R | 5% | 0,5W |
| 3759 | 4822 116 52296 | 6k8 | 5% | 0,5W |
| 3761 | 4822 116 52176 | 10R | 5% | 0,5W |
| 3762 | 4822 116 52176 | 10R | 5% | 0,5W |
| 3763 | 5322 100 11539 | POTMETER 100k LIN | | |
| 3764 | 5322 100 11539 | POTMETER 100k LIN | | |
| 3765 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3766 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3767 | 4822 116 52257 | 22k | 5% | 0,5W |
| 3768 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3769 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3770 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3771 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3772 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3773 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3774 | 4822 051 10333 | 33k | 2% | 0,25W |
| 3775 | 4822 116 52238 | 12k | 5% | 0,5W |
| 3776 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3777 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3778 | 4822 116 52175 | 100R | 5% | 0,5W |
| 3779 | 4822 116 52251 | 18k | 5% | 0,5W |
| 3780 | 4822 116 52251 | 18k | 5% | 0,5W |
| 3781 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3783 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3784 | 4822 116 52289 | 5k6 | 5% | 0,16W |
| 3785 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3786 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3787 | 4822 100 11771 | POTMETER 20k LIN | | |

RESISTORS

| | | | | |
|------|----------------|------|----|------|
| 3789 | 4822 116 52252 | 180k | 5% | 0,5W |
| 3790 | 4822 116 52263 | 2k7 | 5% | 0,5W |
| 3792 | 4822 116 52284 | 47k | 5% | 0,5W |
| 3796 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3798 | 4822 116 52238 | 12k | 5% | 0,5W |

CAPACITORS

| | | | | |
|------|----------------|-------|-----|------|
| 2635 | 4822 124 40242 | 1μF | 20% | 63V |
| 2636 | 4822 124 40242 | 1μF | 20% | 63V |
| 2637 | 4822 122 33069 | 33pF | 5% | 50V |
| 2638 | 4822 122 33069 | 33pF | 5% | 50V |
| 2639 | 4822 124 40242 | 1μF | 20% | 63V |
| 2640 | 4822 124 40242 | 1μF | 20% | 63V |
| 2641 | 4822 126 10329 | 68pF | 5% | 50V |
| 2642 | 4822 126 10329 | 68pF | 5% | 50V |
| 2645 | 4822 122 10577 | 3,3nF | 10% | 16V |
| 2646 | 4822 122 10577 | 3,3nF | 10% | 16V |
| 2647 | 4822 124 40435 | 10μF | 20% | 50V |
| 2648 | 4822 124 40435 | 10μF | 20% | 50V |
| 2649 | 4822 124 40242 | 1μF | 20% | 63V |
| 2650 | 4822 124 40196 | 220μF | 20% | 16V |
| 2651 | 4822 122 33519 | 470pF | 10% | 50V |
| 2652 | 5322 124 41431 | 22μF | 20% | 25V |
| 2653 | 4822 124 40248 | 10μF | 20% | 63V |
| 2655 | 4822 124 40242 | 1μF | 20% | 63V |
| 2656 | 4822 124 40242 | 1μF | 20% | 63V |
| 2657 | 4822 124 40248 | 10μF | 20% | 63V |
| 2658 | 4822 124 40248 | 10μF | 20% | 63V |
| 2659 | 4822 124 40248 | 10μF | 20% | 63V |
| 2660 | 4822 124 40248 | 10μF | 20% | 63V |
| 2663 | 4822 121 42408 | 220nF | 5% | 63V |
| 2664 | 4822 121 42408 | 220nF | 5% | 63V |
| 2665 | 4822 122 33519 | 470pF | 10% | 50V |
| 2666 | 4822 122 33519 | 470pF | 10% | 50V |
| 2667 | 4822 122 33519 | 470pF | 10% | 50V |
| 2668 | 4822 122 33519 | 470pF | 10% | 50V |
| 2669 | 4822 122 33519 | 470pF | 10% | 50V |
| 2670 | 4822 122 33519 | 470pF | 10% | 50V |
| 2673 | 4822 122 10458 | 82pF | 10% | 50V |
| 2674 | 4822 122 10458 | 82pF | 10% | 50V |
| 2675 | 4822 122 33519 | 470pF | 10% | 50V |
| 2676 | 4822 122 33519 | 470pF | 10% | 50V |
| 2677 | 4822 124 41643 | 100μF | 20% | 16V |
| 2699 | 4822 126 10178 | 820pF | 10% | 50V |
| 2700 | 4822 126 10178 | 820pF | 10% | 50V |
| 2701 | 4822 126 12332 | 100pF | 5% | 50V |
| 2702 | 4822 126 12332 | 100pF | 5% | 50V |
| 2703 | 4822 124 41643 | 100μF | 20% | 16V |
| 2704 | 4822 124 41643 | 100μF | 20% | 16V |
| 2705 | 4822 121 41815 | 10nF | 10% | 100V |
| 2706 | 4822 121 41815 | 10nF | 10% | 100V |
| 2707 | 4822 126 11585 | 22nF | | 50V |
| 2708 | 4822 126 11585 | 22nF | | 50V |
| 2709 | 4822 124 40242 | 1μF | 20% | 63V |
| 2710 | 4822 124 40242 | 1μF | 20% | 63V |
| 2712 | 4822 122 33519 | 470pF | 10% | 50V |
| 2713 | 4822 124 40196 | 220μF | 20% | 16V |

CAPACITORS

| | | | | |
|------|----------------|--------|-----|------|
| 2719 | 4822 126 10178 | 820pF | 10% | 50V |
| 2720 | 4822 126 10178 | 820pF | 10% | 50V |
| 2721 | 4822 126 12332 | 100pF | 5% | 50V |
| 2722 | 4822 126 12332 | 100pF | 5% | 50V |
| 2723 | 4822 124 41643 | 100μF | 20% | 16V |
| 2724 | 4822 124 41643 | 100μF | 20% | 16V |
| 2725 | 4822 121 41815 | 10nF | 10% | 100V |
| 2726 | 4822 121 41815 | 10nF | 10% | 100V |
| 2727 | 4822 126 11585 | 22nF | | 50V |
| 2728 | 4822 126 11585 | 22nF | | 50V |
| 2729 | 4822 124 40242 | 1μF | 20% | 63V |
| 2730 | 4822 124 40242 | 1μF | 20% | 63V |
| 2732 | 4822 122 33519 | 470pF | 10% | 50V |
| 2733 | 4822 124 40196 | 220μF | 20% | 16V |
| 2739 | 4822 126 10781 | 470pF | 5% | 50V |
| 2740 | 4822 122 33519 | 470pF | 10% | 50V |
| 2741 | 4822 124 41643 | 100μF | 20% | 16V |
| 2747 | 4822 124 41643 | 100μF | 20% | 16V |
| 2752 | 4822 124 40433 | 47μF | 20% | 25V |
| 2755 | 4822 124 40242 | 1μF | 20% | 63V |
| 2757 | 4822 124 40433 | 47μF | 20% | 25V |
| 2759 | 4822 126 11714 | 4,7nF | 20% | |
| 2760 | 4822 121 51387 | 10nF | 20% | 16V |
| 2762 | 4822 124 40239 | 0,47μF | 20% | 63V |
| 2763 | 4822 126 10329 | 68pF | 5% | 50V |
| 2764 | 4822 126 10329 | 68pF | 5% | 50V |
| 2765 | 4822 121 51093 | 6,8nF | 5% | 250V |
| 2768 | 4822 124 41643 | 100μF | 20% | 16V |
| 2769 | 4822 122 33519 | 470pF | 10% | 50V |
| 2770 | 4822 124 40196 | 220μF | 20% | 16V |
| 2771 | 4822 126 11714 | 4,7nF | 20% | |
| 2772 | 4822 126 11714 | 4,7nF | 20% | |
| 2773 | 4822 126 11714 | 4,7nF | 20% | |
| 2774 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2775 | 4822 124 40433 | 47μF | 20% | 25V |
| 2776 | 4822 124 40242 | 1μF | 20% | 63V |
| 2777 | 4822 124 40242 | 1μF | 20% | 63V |
| 2778 | 4822 124 40242 | 1μF | 20% | 63V |
| 2779 | 4822 126 10178 | 820pF | 10% | 50V |
| 2780 | 4822 126 10178 | 820pF | 10% | 50V |
| 2781 | 4822 126 11585 | 22nF | | 50V |
| 2782 | 4822 126 11585 | 22nF | | 50V |
| 2783 | 4822 124 40242 | 1μF | 20% | 63V |
| 2784 | 4822 124 40242 | 1μF | 20% | 63V |
| 2785 | 4822 126 11592 | 1nF | 10% | 50V |
| 2786 | 4822 126 11592 | 1nF | 10% | 50V |
| 2789 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2790 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2791 | 4822 121 51387 | 10nF | 20% | 16V |
| 2792 | 4822 121 51387 | 10nF | 20% | 16V |

TUNER ECO4

MISCELLANEOUS

| | | |
|------|----------------|---------------------|
| 1101 | 4822 267 10283 | SOCKET COAX IEC 75R |
| 1101 | 4822 265 20598 | F-CONNECT. COAX 75R |

DIODES

| | | |
|------|----------------|---------|
| 6105 | 4822 130 83075 | HN1V02H |
| 6109 | 4822 130 82833 | 1SV228 |
| 6122 | 4822 130 30621 | 1N4148 |
| 6121 | 4822 130 30621 | 1N4148 |
| 6123 | 4822 130 30621 | 1N4148 |

| | | |
|------|----------------|------------|
| 6124 | 4822 130 82833 | 1SV228 |
| 6140 | 4822 130 30621 | 1N4148 |
| 6154 | 4822 130 30621 | 1N4148 |
| 6174 | 4822 130 34233 | BZX79-B5V1 |

TRANSISTORS

| | | |
|------|----------------|--------------|
| 7102 | 5322 130 42136 | BC848C(CHIP) |
| 7104 | 5322 130 42136 | BC848C(CHIP) |
| 7105 | 4822 130 60093 | 2SA838B |
| 7120 | 4822 130 60163 | 2SC1047 |
| 7121 | 5322 130 42136 | BC848C(CHIP) |
| 7123 | 5322 130 42136 | BC848C(CHIP) |
| 7128 | 5322 130 42136 | BC848C(CHIP) |
| 7152 | 5322 130 41983 | BC858B(CHIP) |
| 7156 | 4822 130 41344 | BC337-40 |
| 7157 | 4822 130 41344 | BC337-40 |
| 7169 | 5322 130 42136 | BC848C(CHIP) |
| 7170 | 5322 130 42136 | BC848C(CHIP) |
| 7171 | 5322 130 42136 | BC848C(CHIP) |
| 7174 | 5322 130 41983 | BC858B(CHIP) |
| 7178 | 5322 130 41983 | BC858B(CHIP) |
| 7179 | 5322 130 42136 | BC848C(CHIP) |

INTEGRATED CIRCUITS

| | | |
|------|----------------|-------------------------|
| 7140 | 4822 209 32011 | TEA5712T/N1 (Radio-IC) |
| 7140 | 4822 209 32701 | TEA5712T/N2 (Radio-IC) |
| 7150 | 5322 209 14482 | HEF4069UBT (6xINVERTER) |
| 7172 | 4822 209 30606 | MM74HCU04M (6xINVERTER) |
| 7173 | 4822 209 31998 | LC7218M SYNTHESIZER |

COILS

| | | |
|------|----------------|------------------------|
| 5105 | 4822 158 60641 | Ferrite ant.,MW/LW |
| 5106 | 4822 158 60642 | Ferrite ant.,MW |
| 5109 | 4822 156 30947 | RF COIL var. 1,5 TURNS |
| 5120 | 4822 156 30947 | RF COIL var. 1,5 TURNS |
| 5122 | 4822 157 60517 | COIL var. 110µH 8% |

COILS

| | | |
|------|----------------|----------------------|
| 5123 | 4822 157 60517 | COIL var. 110µH 8% |
| 5140 | 4822 158 60511 | AM-IF FILTER 450kHz |
| 5142 | 4822 157 70302 | AM-IF FILTER 450kHz |
| 5143 | 4822 242 70665 | CER. FILTER 10,7MHZ |
| 5144 | 4822 242 70665 | CER. FILTER 10,7MHZ |
| 5145 | 4822 242 81362 | CER. DISCRIMINATOR |
| 5150 | 4822 157 50975 | 1mµH 10% |
| 5170 | 4822 242 72976 | CER.RESONATOR 7,2MHz |

RESISTORS

| | | | | |
|------|----------------|--------------------|----|--------|
| 3119 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3120 | 4822 116 52289 | 5k6 | 5% | 0,16W |
| 3124 | 4822 116 52256 | 2k2 | 5% | 0,16W |
| 3132 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3141 | 4822 116 52215 | 220R | 5% | 0,1 6W |
| 3148 | 4822 100 11163 | POTMETER 100k LIN. | | |
| 3151 | 4822 116 52243 | 1k5 | 5% | 0,16W |
| 3156 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3162 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3163 | 4822 050 11002 | 1k | 5% | 0,2W |
| 3164 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3165 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3170 | 4822 116 52283 | 4k7 | 5% | 0,5W |
| 3173 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3174 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3177 | 4822 116 52233 | 10k | 5% | 0,5W |
| 3181 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3189 | 4822 116 52249 | 1k8 | 5% | 0,16W |
| 3190 | 4822 116 52249 | 1k8 | 5% | 0,16W |
| 3191 | 4822 116 52249 | 1k8 | 5% | 0,16W |
| 3192 | 4822 116 52249 | 1k8 | 5% | 0,16W |
| 3193 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3194 | 4822 050 24701 | 470R | 5% | |
| 3195 | 4822 050 24701 | 470R | 5% | |
| 3197 | 4822 050 24701 | 470R | 5% | |
| 3201 | 4822 116 52176 | 10R | 5% | 0,16W |

CHIP RESISTORS

| | | | | |
|------|----------------|------|----|------|
| 3106 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3107 | 4822 051 20222 | 2k2 | 5% | 0,1W |
| 3108 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3109 | 4822 051 20222 | 2k2 | 5% | 0,1W |
| 3110 | 4822 051 20473 | 47k | 5% | 0,1W |
| 3111 | 4822 051 20153 | 15k | 5% | 0,1W |
| 3112 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3116 | 4822 051 20335 | 3M3 | 5% | 0,1W |
| 3121 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3122 | 4822 051 20471 | 470R | 5% | 0,1W |
| 3123 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3125 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3128 | 4822 051 20222 | 2k2 | 5% | 0,1W |
| 3129 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3142 | 4822 051 20222 | 2k2 | 5% | 0,1W |

CHIP RESISTORS

| | | | | |
|------|----------------|------------------|----|-------|
| 3144 | 4822 051 20473 | 47k | 5% | 0,1W |
| 3147 | 4822 051 20184 | 180k | 5% | 0,1W |
| 3149 | 4822 051 20563 | 56k | 5% | 0,1W |
| 3154 | 4822 051 20333 | 33k | 5% | 0,1W |
| 3155 | 4822 051 20333 | 33k | 5% | 0,1W |
| 3157 | 4822 051 20273 | 27k | 5% | 0,1W |
| 3158 | 4822 051 20189 | 18R | 5% | 0,1W |
| 3159 | 4822 051 20184 | 180k | 5% | 0,1W |
| 3160 | 4822 051 20823 | 82k | 5% | 0,1W |
| 3161 | 4822 051 20823 | 82k | 5% | 0,1W |
| 3166 | 4822 051 20101 | 100R | 5% | 0,1W |
| 3167 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3171 | 4822 051 20101 | 100R | 5% | 0,1W |
| 3172 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3175 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3176 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3178 | 4822 051 20332 | 3k3 | 5% | 0,1W |
| 3179 | 4822 051 20273 | 27k | 5% | 0,1W |
| 3180 | 4822 051 20333 | 33k | 5% | 0,1W |
| 3183 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3184 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3185 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3186 | 4822 051 20183 | 18k | 5% | 0,1W |
| 3188 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3200 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3211 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3212 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3213 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3220 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3222 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3223 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3224 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3226 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3228 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3229 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3233 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3235 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3237 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3238 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3240 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3241 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3242 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3243 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3244 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3245 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3246 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3247 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 3248 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3249 | 4822 051 20153 | 15k | 5% | 0,1W |
| 3249 | 4822 051 20821 | 820R | 5% | 0,1W |

CAPACITORS

| | | | | |
|------|----------------|-------|----------|-----|
| 2100 | 4822 122 33195 | 100pF | 10% | 50V |
| 2104 | 4822 122 33195 | 100pF | 10% | 50V |
| 2107 | 4822 122 31746 | 1nF | 5% | 50V |
| 2115 | 4822 125 60101 | 10pF | VARIABLE | |
| 2122 | 4822 122 31746 | 1nF | 5% | 50V |

CAPACITORS

| | | | | |
|------|----------------|------------|----------|------|
| 2123 | 4822 122 31746 | 1nF | 5% | 50V |
| 2124 | 4822 121 51387 | 10nF | 20% | 16V |
| 2129 | 4822 121 43705 | 390pF | 1% | 160V |
| 2130 | 4822 125 50355 | 4,2 - 20pF | VARIABLE | |
| 2134 | 4822 122 33197 | 1nF | 10% | 50V |
| 2135 | 4822 121 70245 | 560pF | 1% | 160V |
| 2141 | 4822 124 40244 | 2,2µF | 20% | 63V |
| 2142 | 4822 124 40242 | 1µF | 20% | 63V |
| 2150 | 4822 124 40435 | 10µF | 20% | 50V |
| 2151 | 4822 124 40435 | 10µF | 20% | 50V |
| 2156 | 5322 126 10181 | 100nF | | 25V |
| 2157 | 5322 126 10181 | 100nF | | 25V |
| 2158 | 4822 122 31746 | 1nF | 5% | 50V |
| 2159 | 4822 122 31746 | 1nF | 5% | 50V |
| 2160 | 4822 124 40242 | 1µF | 20% | 63V |
| 2161 | 4822 124 40242 | 1µF | 20% | 63V |
| 2162 | 4822 124 40242 | 1µF | 20% | 63V |
| 2172 | 4822 124 41631 | 1,5µF | 20% | 50V |
| 2173 | 4822 124 40433 | 47µF | 20% | 25V |
| 2177 | 5322 126 10181 | 100nF | | 25V |
| 2178 | 4822 122 33197 | 1nF | 10% | 50V |
| 2179 | 4822 122 33195 | 100pF | 10% | 50V |
| 2184 | 4822 124 41584 | 100µF | 20% | 10V |
| 2186 | 4822 122 31746 | 1nF | 5% | 50V |

CHIP CAPACITORS

| | | | | |
|------|----------------|-------|-----|-----|
| 2110 | 5322 122 32659 | 33pF | 5% | 50V |
| 2110 | 5322 122 32269 | 6,8pF | 5% | 50V |
| 2112 | 4822 122 33496 | 100nF | 10% | 63V |
| 2114 | 5322 122 32531 | 100pF | 5% | 50V |
| 2120 | 5322 122 32268 | 470pF | 10% | 50V |
| 2121 | 5322 122 32481 | 15pF | 5% | 50V |
| 2133 | 4822 122 33177 | 10nF | 20% | 50V |
| 2138 | 5322 122 32658 | 22pF | 5% | 50V |
| 2138 | 5322 122 32658 | 22pF | 5% | 50V |
| 2139 | 4822 122 32627 | 2,2nF | 10% | 50V |
| 2143 | 4822 122 33325 | 470nF | 20% | 50V |
| 2144 | 4822 122 33325 | 470nF | 20% | 50V |
| 2145 | 4822 122 33496 | 100nF | 10% | 63V |
| 2146 | 5322 122 33063 | 2,2pF | 10% | 50V |
| 2147 | 4822 122 33177 | 10nF | 20% | 50V |
| 2152 | 4822 122 33496 | 100nF | 10% | 63V |
| 2154 | 4822 122 33177 | 10nF | 20% | 50V |
| 2154 | 4822 122 33128 | 15nF | 20% | 50V |
| 2155 | 4822 122 33177 | 10nF | 20% | 50V |
| 2155 | 4822 122 33128 | 15nF | 20% | 50V |
| 2158 | 4822 122 31768 | 180pF | 5% | 50V |
| 2159 | 4822 122 31768 | 180pF | 5% | 50V |
| 2168 | 4822 122 33481 | 1,8nF | 5% | NPO |
| 2169 | 5322 122 31863 | 330pF | 5% | 50V |
| 2170 | 5322 126 10223 | 4,7nF | 10% | 63V |
| 2171 | 5322 126 10223 | 4,7nF | 10% | 63V |
| 2174 | 5322 116 80853 | 560pF | 5% | 63V |
| 2175 | 5322 122 32531 | 100pF | 5% | 50V |
| 2180 | 5322 122 31946 | 27pF | 5% | 50V |
| 2181 | 4822 122 32139 | 12pF | 5% | 63V |

CHIP CAPACITORS

| | | | | |
|------|----------------|-------|-----|-----|
| 2183 | 4822 122 33496 | 100nF | 10% | 63V |
| 2185 | 4822 122 33496 | 100nF | 10% | 63V |
| 2193 | 4822 122 33496 | 100nF | 10% | 63V |

TUNER 92

MISCELLANEOUS

| | | |
|------|----------------|---------------------|
| 1101 | 4822 210 10492 | FRONTEND ASSY |
| 1110 | 4822 267 10283 | SOCKET COAX IEC 75R |

DIODES

| | | |
|------|----------------|------------|
| 6101 | 4822 130 34174 | BZX79-C4V7 |
| 6102 | 4822 130 83075 | HN1V02H |
| 6109 | 4822 130 30621 | 1N4148 |

TRANSISTORS

| | | |
|------|----------------|--------------|
| 7101 | 4822 130 60163 | 2SC1047 |
| 7104 | 5322 130 60068 | BC558C |
| 7106 | 5322 130 60068 | BC558C |
| 7107 | 5322 130 41982 | BC848 (CHIP) |
| 7108 | 4822 130 44196 | BC548C |

| | | |
|------|----------------|--------------|
| 7109 | 4822 130 44196 | BC548C |
| 7111 | 5322 130 41982 | BC848 (CHIP) |
| 7112 | 4822 130 60163 | 2SC1047 |
| 7113 | 4822 130 44196 | BC548C |
| 7114 | 4822 130 40937 | BC548B |

| | | |
|------|----------------|--------------|
| 7115 | 4822 130 41024 | BF245B |
| 7116 | 4822 130 60163 | 2SC1047 |
| 7119 | 5322 130 41983 | BC858B(CHIP) |
| 7120 | 4822 130 44196 | BC548C |
| 7150 | 5322 130 44779 | BC338-40 |

| | | |
|------|----------------|----------|
| 7157 | 5322 130 44779 | BC338-40 |
|------|----------------|----------|

INTEGRATED CIRCUITS

| | | |
|------|----------------|---------|
| 7103 | 4822 209 31001 | LA1851N |
| 7105 | 4822 209 30178 | LC7218 |

COILS

| | | |
|------|----------------|----------------------|
| 5101 | 4822 157 53192 | 0,22μH |
| 5103 | 4822 242 81249 | CER. FILTER 10,7MHz |
| 5104 | 4822 157 63029 | AM IF COIL |
| 5105 | 4822 157 63904 | Q-DETECION COIL |
| 5106 | 4822 157 63802 | BIRDY FILTER |
| 5107 | 4822 157 63799 | ANT. COIL MW 3-BAND |
| 5108 | 4822 157 63912 | OSC.COIL AM 3-BAND |
| 5110 | 4822 242 71878 | CERAM.FILTER 450kHz |
| 5111 | 4822 242 81248 | CERAM. RES. 19kHz |
| 5112 | 4822 242 72976 | CER.RESONATOR 7,2MHz |

| | | |
|------|----------------|---------------------|
| 5113 | 4822 242 81249 | CER. FILTER 10,7MHz |
| 5114 | 4822 152 20699 | 560μH |
| 5127 | 4822 158 60643 | FERROCEPTOR |

RESISTORS

| | | | | |
|------|----------------|------|----|-------|
| 3100 | 4822 050 21501 | 150R | 1% | 0,6W |
| 3108 | 4822 116 52224 | 470R | 5% | 0,5W |
| 3113 | 4822 050 22201 | 220R | 2% | 0,25W |
| 3118 | 4822 116 52215 | 220R | 5% | 0,16W |
| 3120 | 4822 052 10229 | 22R | 5% | 0,33W |

RESISTORS

| | | | | |
|------|----------------|------|----------|------|
| 3125 | 4822 100 11213 | 22k | 30% | POT. |
| 3131 | 4822 100 11319 | 4k7 | trimpot. | |
| 3134 | 4822 050 15602 | 5k6 | 1% | 0,4W |
| 3138 | 4822 116 83922 | 150R | 5% | 1W |
| 3147 | 4822 050 15602 | 5k6 | 1% | 0,4W |

| | | | | |
|------|----------------|------|----|-------|
| 3150 | 4822 050 25601 | 560R | 1% | 0,6W |
| 3151 | 4822 050 24702 | 4k7 | 1% | 0,6W |
| 3155 | 4822 050 22201 | 220R | 2% | 0,25W |
| 3158 | 4822 050 24702 | 4k7 | 1% | 0,6W |
| 3162 | 4822 050 22701 | 270R | 1% | 0,6W |

| | | | | |
|------|----------------|-----|----|-------|
| 3165 | 4822 050 21002 | 1k | 1% | 0,6W |
| 3166 | 4822 050 21002 | 1k | 1% | 0,6W |
| 3167 | 4822 050 21002 | 1k | 1% | 0,6W |
| 3183 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3186 | 4822 050 21003 | 10k | 2% | 0,25W |

| | | | | |
|------|----------------|----------|-----|------|
| 3225 | 4822 050 21002 | 1k | 1% | 0,6W |
| 3244 | 5322 116 44005 | PTC 250R | 25% | |

CHIP RESISTORS

| | | | | |
|------|----------------|------|----|------|
| 3102 | 4822 051 20224 | 220k | 5% | 0,1W |
| 3104 | 4822 051 20154 | 150k | 5% | 0,1W |
| 3105 | 4822 051 20562 | 5k6 | 5% | 0,1W |
| 3106 | 4822 051 20829 | 82R | 5% | 0,1W |
| 3107 | 4822 051 20104 | 100k | 5% | 0,1W |

| | | | | |
|------|----------------|------|----|------|
| 3114 | 4822 051 20332 | 3k3 | 5% | 0,1W |
| 3115 | 4822 051 20391 | 390R | 5% | 0,1W |
| 3116 | 4822 051 20478 | 4R7 | 5% | 0,1W |
| 3117 | 4822 051 20331 | 330R | 5% | 0,1W |
| 3121 | 4822 051 20272 | 2k7 | 5% | 0,1W |

| | | | | |
|------|----------------|-----|----|------|
| 3122 | 4822 051 20562 | 5k6 | 5% | 0,1W |
| 3123 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3124 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3126 | 4822 051 20123 | 12k | 2% | 0,1W |
| 3127 | 4822 051 20562 | 5k6 | 5% | 0,1W |

| | | | | |
|------|----------------|------------------|----|------|
| 3128 | 4822 051 20562 | 5k6 | 5% | 0,1W |
| 3129 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3132 | 4822 051 20183 | 18k | 5% | 0,1W |
| 3133 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3135 | 4822 051 10008 | CHIP JUMPER 1206 | | |

| | | | | |
|------|----------------|------|----|------|
| 3141 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3142 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3143 | 4822 051 20821 | 820R | 5% | 0,1W |
| 3144 | 4822 051 20331 | 330R | 5% | 0,1W |
| 3145 | 4822 051 20271 | 270R | 5% | 0,1W |

| | | | | |
|------|----------------|------|----|------|
| 3148 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3149 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3152 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3153 | 4822 051 20274 | 270k | 5% | 0,1W |
| 3156 | 4822 051 20153 | 15k | 5% | 0,1W |

| | | | | |
|------|----------------|------|----|------|
| 3157 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3159 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3160 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3163 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3164 | 4822 051 20473 | 47k | 5% | 0,1W |

| | | | | |
|------|----------------|-----|----|------|
| 3170 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3171 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3172 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3173 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3184 | 4822 051 20332 | 3k3 | 5% | 0,1W |

CHIP RESISTORS

| | | | | |
|------|----------------|------------------|----|------|
| 3185 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3187 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3190 | 4822 051 20479 | 47R | 5% | 0,1W |
| 3194 | 4822 051 20472 | 4k7 | 5% | 0,1W |
| 3196 | 4822 051 20008 | CHIP JUMPER 0805 | | |

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|------|----------------|------------------|----|------|
| 3197 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3198 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3200 | 4822 051 20008 | CHIP JUMPER 0805 | | |
| 3201 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3202 | 4822 051 20008 | CHIP JUMPER 0805 | | |

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|------|----------------|------------------|----|-------|
| 3223 | 4822 051 20474 | 470k | 5% | 0,1W |
| 3230 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3231 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3233 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3236 | 4822 051 20008 | CHIP JUMPER 0805 | | |

| | | | | |
|------|----------------|-----|----|------|
| 3240 | 4822 051 20472 | 4k7 | 5% | 0,1W |
|------|----------------|-----|----|------|

CAPACITORS

| | | | | |
|------|----------------|--------|-----|-----|
| 2103 | 4822 124 40433 | 47μF | 20% | 25V |
| 2104 | 4822 121 42408 | 220nF | 5% | 63V |
| 2107 | 4822 122 31385 | 22pF | 5% | 50V |
| 2114 | 5322 124 41431 | 22μF | 20% | 25V |
| 2115 | 4822 124 40239 | 0,47μF | 20% | 63V |

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|------|----------------|-------|-----|------|
| 2116 | 5322 121 42386 | 100nF | 5% | 63V |
| 2117 | 4822 121 41935 | 12nF | 5% | 250V |
| 2118 | 4822 121 41935 | 12nF | 5% | 250V |
| 2119 | 4822 124 40244 | 2,2μF | 20% | 63V |
| 2120 | 4822 124 40244 | 2,2μF | 20% | 63V |

| | | | | |
|------|----------------|-------|-----|-----|
| 2121 | 4822 124 40196 | 220μF | 20% | 16V |
| 2123 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2124 | 4822 124 40246 | 4,7μF | 20% | 63V |
| 2129 | 4822 124 40242 | 1μF | 20% | 63V |
| 2131 | 4822 124 40435 | 10μF | 20% | 50V |

| | | | | |
|------|----------------|---------------|-----|------|
| 2142 | 4822 125 60102 | 30pF VARIABLE | | |
| 2144 | 4822 121 42408 | 220nF | 5% | 63V |
| 2145 | 4822 121 51263 | 510pF | 1% | 400V |
| 2146 | 4822 121 70082 | 430pF | 1% | 400V |
| 2152 | 4822 124 40242 | 1μF | 20% | 63V |

| | | | | |
|------|----------------|---------------|-----|-----|
| 2156 | 4822 124 40433 | 47μF | 20% | 25V |
| 2160 | 4822 124 41631 | 1,5μF | 20% | 50V |
| 2162 | 4822 122 10166 | 22nF | 30% | 16V |
| 2165 | 4822 124 40433 | 47μF | 20% | 25V |
| 2193 | 4822 125 60102 | 30pF VARIABLE | | |

| | | | | |
|------|----------------|---------------|-----|-----|
| 2194 | 4822 125 60101 | 10pF VARIABLE | | |
| 2210 | 4822 124 41643 | 100μF | 20% | 16V |

CHIP CAPACITORS

| | | | | |
|------|----------------|-------|-----|-----|
| 2101 | 5322 122 34099 | 470pF | 10% | 63V |
| 2102 | 5322 122 32268 | 470pF | 10% | 50V |
| 2105 | 5322 122 32965 | 18pF | 5% | 50V |
| 2108 | 5322 122 32654 | 22nF | 10% | 63V |
| 2109 | 5322 122 32654 | 22nF | 10% | 63V |

| | | | | |
|------|----------------|------|-----|-----|
| 2110 | 5322 122 32654 | 22nF | 10% | 63V |
| 2112 | 5322 122 32654 | 22nF | 10% | 63V |
| 2113 | 5322 122 32661 | 56pF | 5% | 50V |
| 2125 | 4822 122 33177 | 10nF | 20% | 50V |
| 2126 | 4822 122 31782 | 15nF | 10% | 50V |

CHIP CAPACITORS

| | | | | |
|------|----------------|-------|-----|------|
| 2147 | 5322 122 32654 | 22nF | 10% | 63V |
| 2148 | 5322 122 32452 | 47pF | 5% | 50V |
| 2149 | 4822 122 33177 | 10nF | 20% | 50V |
| 2150 | 5322 122 32654 | 22nF | 10% | 63V |
| 2151 | 5322 122 34099 | 470pF | 10% | 63V |
| | | | | |
| 2153 | 5322 122 34099 | 470pF | 10% | 63V |
| 2154 | 5322 122 32481 | 15pF | 5% | 50V |
| 2155 | 5322 122 32965 | 18pF | 5% | 50V |
| 2158 | 5322 126 10223 | 4,7nF | 10% | 63V |
| 2159 | 5322 126 10223 | 4,7nF | 10% | 63V |
| | | | | |
| 2161 | 4822 122 32927 | 220nF | 10% | 63V |
| 2195 | 5322 122 33861 | 120pF | 5% | NPO |
| 2196 | 5322 122 32448 | 10pF | 5% | 50V |
| 2215 | 5322 122 32268 | 470pF | 10% | 50V |
| 2216 | 5322 122 32268 | 470pF | 10% | 50V |
| | | | | |
| 2219 | 4822 122 32927 | 220nF | 10% | 63V |
| 2221 | 5322 122 32268 | 470pF | 10% | 50V |
| 2224 | 4822 122 31173 | 220pF | 10% | 500V |
| 2225 | 4822 122 31173 | 220pF | 10% | 500V |

CD BOARD

MISCELLANEOUS

| | | |
|------|----------------|---------------|
| 1020 | 4822 071 51601 | FUSE 160mA |
| 1021 | 4822 071 51601 | FUSE 160mA |
| 1250 | 4822 267 30933 | SOCKET CHINCH |

DIODES

| | | |
|------|----------------|------------|
| 6103 | 4822 130 30621 | 1N4148 |
| 6550 | 4822 130 31981 | BZX79-C3V9 |
| 6660 | 4822 130 34173 | BZX79-C5V6 |

TRANSISTORS

| | | |
|------|----------------|--------------|
| 7040 | 4822 130 60887 | BF840 |
| 7041 | 5322 130 41982 | BC848 (CHIP) |
| 7042 | 5322 130 41983 | BC858B(CHIP) |
| 7043 | 5322 130 41982 | BC848 (CHIP) |
| 7044 | 5322 130 41982 | BC848 (CHIP) |

| | | |
|------|----------------|-----------------|
| 7140 | 5322 130 42012 | BC858 (CHIP) |
| 7141 | 4822 130 61207 | BC848 (CHIP) |
| 7360 | 4822 130 42804 | BC817-25 (CHIP) |
| 7361 | 4822 130 42804 | BC817-25 (CHIP) |
| 7362 | 5322 130 42012 | BC858 (CHIP) |

| | | |
|------|----------------|--------------|
| 7550 | 5322 130 42012 | BC858 (CHIP) |
|------|----------------|--------------|

INTEGRATED CIRCUITS

| | | |
|------|----------------|----------------------|
| 7000 | 4822 209 31064 | TDA1301T/N1 |
| 7060 | 4822 209 72587 | TCA372DP2 |
| 7080 | 4822 209 72587 | TCA372DP2 |
| 7101 | 4822 209 32036 | UM6264BM-10L, RAM |
| 7102 | 4822 209 30388 | SAA7341GP |
| | | |
| 7300 | 4822 209 83274 | NJM4560D |
| 7301 | 4822 209 83274 | NJM4560D |
| 7500 | 4822 209 80891 | MC7805CT |
| 7660 | 4822 209 72587 | TCA372DP2 |
| 7700 | 4822 900 10318 | MC68HC05C8/SERVO-S17 |

COILS

| | | |
|------|----------------|----------------------|
| 1002 | 4822 242 73557 | CERAMIC RES. 8,46MHz |
| 1570 | 4822 242 81151 | X-TAL 16,934MHz |
| 1700 | 4822 242 72527 | CERAMIC RES. 4.0 MHz |
| 5250 | 4822 148 80281 | COIL 100µH |

RESISTORS

| | | | | |
|------|----------------|-----|----|-------|
| 3000 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3001 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3002 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3003 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3004 | 4822 050 21003 | 10k | 2% | 0,25W |
| | | | | |
| 3005 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3007 | 4822 052 10338 | 3R3 | | NFR25 |
| 3008 | 4822 052 10338 | 3R3 | | NFR25 |
| 3014 | 4822 052 10478 | 4R7 | 5% | NFR |
| 3015 | 4822 050 21002 | 1k | 1% | 0,6W |

RESISTORS

| | | | | |
|------|----------------|------|----|------|
| 3016 | 4822 050 21002 | 1k | 1% | 0,6W |
| 3049 | 4822 050 24301 | 430R | 1% | 0,6W |
| 3056 | 4822 050 21204 | 120k | 1% | 0,6W |
| 3057 | 4822 050 25603 | 56k | 1% | 0,6W |
| 3058 | 4822 050 21002 | 1k | 1% | 0,6W |

| | | | | |
|------|----------------|-----|----|-------|
| 3062 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3064 | 4822 050 21503 | 15k | 1% | 0,6W |
| 3065 | 4822 052 10229 | 22R | 5% | 0,33W |
| 3066 | 4822 052 10108 | 1R | 5% | 0,33W |
| 3067 | 4822 052 10108 | 1R | 5% | 0,33W |

| | | | | |
|------|----------------|-----|----|-------|
| 3072 | 4822 050 26802 | 6k8 | 1% | 0,6W |
| 3073 | 4822 052 10229 | 22R | 5% | 0,33W |
| 3074 | 4822 116 52244 | 15k | 5% | 0,5W |
| 3075 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3081 | 4822 050 24702 | 4k7 | 1% | 0,6W |

| | | | | |
|------|----------------|-----|----|-------|
| 3083 | 4822 052 10108 | 1R | 5% | 0,33W |
| 3084 | 4822 052 10108 | 1R | 5% | 0,33W |
| 3085 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3086 | 4822 052 10229 | 22R | 5% | 0,33W |
| 3087 | 4822 116 52244 | 15k | 5% | 0,5W |

| | | | | |
|------|----------------|-----|----|-------|
| 3100 | 4822 050 22202 | 2k2 | 1% | 0,6W |
| 3103 | 4822 052 10338 | 3R3 | | NFR25 |
| 3105 | 4822 052 10338 | 3R3 | | NFR25 |
| 3111 | 4822 052 10229 | 22R | 5% | 0,33W |
| 3112 | 4822 050 22205 | 2M2 | 1% | 0,6W |

| | | | | |
|------|----------------|------|----|-------|
| 3140 | 4822 116 52234 | 100k | 5% | 0,5W |
| 3142 | 4822 050 24703 | 47k | 1% | 0,6W |
| 3143 | 4822 052 10229 | 22R | 5% | 0,33W |
| 3146 | 4822 050 21003 | 10k | 2% | 0,25W |
| 3305 | 4822 052 10229 | 22R | 5% | 0,33W |

| | | | | |
|------|----------------|-----|----|-------|
| 3306 | 4822 052 10229 | 22R | 5% | 0,33W |
| 3312 | 4822 050 22203 | 22k | 1% | 0,6W |
| 3314 | 4822 050 21002 | 1k | 1% | 0,6W |
| 3315 | 4822 050 21002 | 1k | 1% | 0,6W |
| 3501 | 4822 052 10108 | 1R | 5% | 0,33W |

| | | | | |
|------|----------------|-----|----|-------|
| 3502 | 4822 052 10108 | 1R | 5% | 0,33W |
| 3611 | 4822 116 52303 | 8k2 | 5% | 0,5W |
| 3615 | 4822 052 10108 | 1R | 5% | 0,33W |
| 3616 | 4822 052 10108 | 1R | 5% | 0,33W |
| 3617 | 4822 052 10229 | 22R | 5% | 0,33W |

| | | | | |
|------|----------------|-----|--|-------|
| 3701 | 4822 052 10338 | 3R3 | | NFR25 |
|------|----------------|-----|--|-------|

CHIP RESISTORS

| | | | | |
|------|----------------|-----|----|-------|
| 3006 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3009 | 4822 051 20105 | 1M | 5% | 0,1W |
| 3010 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3011 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3012 | 4822 051 10102 | 1k | 2% | 0,25W |

| | | | | |
|------|----------------|------|----|--------|
| 3013 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3017 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3040 | 4822 051 10101 | 100R | 5% | 0,125W |
| 3041 | 4822 051 20393 | 39k | 5% | 0,1W |
| 3042 | 4822 051 20334 | 330k | 5% | 0,1W |

| | | | | |
|------|----------------|------|----|-------|
| 3043 | 4822 051 20303 | 30k | 5% | 0,1W |
| 3044 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3045 | 4822 051 20101 | 100R | 5% | 0,1W |
| 3046 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3047 | 4822 051 20434 | 430k | 5% | 0,1W |

CHIP RESISTORS

| | | | | |
|------|----------------|------|----|------|
| 3048 | 4822 051 20101 | 100R | 5% | 0,1W |
| 3050 | 4822 051 20434 | 430k | 5% | 0,1W |
| 3051 | 4822 051 20182 | 1k8 | 5% | 0,1W |
| 3052 | 4822 051 20182 | 1k8 | 5% | 0,1W |
| 3053 | 4822 051 20392 | 3k9 | 5% | 0,1W |

| | | | | |
|------|----------------|------|----|------|
| 3054 | 4822 051 20101 | 100R | 5% | 0,1W |
| 3055 | 4822 051 20124 | 120k | 5% | 0,1W |
| 3060 | 4822 117 10036 | 7k5 | 1% | 0,1W |
| 3061 | 4822 051 20682 | 6k8 | 5% | 0,1W |
| 3063 | 4822 051 20103 | 10k | 5% | 0,1W |

| | | | | |
|------|----------------|-----|----|------|
| 3070 | 4822 051 20153 | 15k | 5% | 0,1W |
| 3071 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3080 | 4822 051 20682 | 6k8 | 5% | 0,1W |
| 3082 | 4822 051 20153 | 15k | 5% | 0,1W |
| 3101 | 4822 051 20223 | 22k | 5% | 0,1W |

| | | | | |
|------|----------------|-----|----|-------|
| 3102 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3106 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3109 | 4822 051 20222 | 2k2 | 5% | 0,1W |
| 3110 | 4822 051 20105 | 1M | 5% | 0,1W |
| 3117 | 4822 051 20182 | 1k8 | 5% | 0,1W |

| | | | | |
|------|----------------|------|----|-------|
| 3118 | 4822 051 20182 | 1k8 | 5% | 0,1W |
| 3119 | 4822 051 10561 | 560R | 2% | 0,25W |
| 3141 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3144 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3147 | 4822 051 20392 | 3k9 | 5% | 0,1W |

| | | | | |
|------|----------------|------|----|-------|
| 3148 | 4822 051 20473 | 47k | 5% | 0,1W |
| 3255 | 4822 051 10561 | 560R | 2% | 0,25W |
| 3256 | 4822 051 20621 | 620R | 5% | 0,1W |
| 3300 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3301 | 4822 051 20273 | 27k | 5% | 0,1W |

| | | | | |
|------|----------------|-----|----|------|
| 3302 | 4822 051 20332 | 3k3 | 5% | 0,1W |
| 3303 | 4822 051 20123 | 12k | 2% | 0,1W |
| 3304 | 4822 051 20123 | 12k | 2% | 0,1W |
| 3307 | 4822 051 20332 | 3k3 | 5% | 0,1W |
| 3308 | 4822 051 20123 | 12k | 2% | 0,1W |

| | | | | |
|------|----------------|------|----|------|
| 3309 | 4822 051 20104 | 100k | 5% | 0,1W |
| 3310 | 4822 051 20273 | 27k | 5% | 0,1W |
| 3311 | 4822 051 20123 | 12k | 2% | 0,1W |
| 3313 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3320 | 4822 116 83933 | 15k | 1% | 0,1W |

| | | | | |
|------|----------------|-----|----|------|
| 3321 | 4822 116 83933 | 15k | 1% | 0,1W |
| 3322 | 4822 116 83933 | 15k | 1% | 0,1W |
| 3323 | 4822 116 83933 | 15k | 1% | 0,1W |
| 3325 | 4822 116 83933 | 15k | 1% | 0,1W |
| 3326 | 4822 116 83933 | 15k | 1% | 0,1W |

| | | | | |
|------|----------------|------|----|-------|
| 3327 | 4822 116 83933 | 15k | 1% | 0,1W |
| 3328 | 4822 116 83933 | 15k | 1% | 0,1W |
| 3360 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3361 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3550 | 4822 051 20561 | 560R | 5% | 0,1W |

| | | | | |
|------|----------------|-----|----|-------|
| 3551 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3552 | 4822 051 20223 | 22k | 5% | 0,1W |
| 3553 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3610 | 4822 051 20123 | 12k | 2% | 0,1W |
| 3612 | 4822 051 20123 | 12k | 2% | 0,1W |

| | | | | |
|------|----------------|-----|----|------|
| 3613 | 4822 051 20123 | 12k | 2% | 0,1W |
| 3614 | 4822 051 20123 | 12k | 2% | 0,1W |
| 3662 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3663 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3664 | 4822 051 20103 | 10k | 5% | 0,1W |

CHIP RESISTORS

| | | | | |
|------|----------------|------------------|----|-------|
| 3665 | 4822 051 20561 | 560R | 5% | 0,1W |
| 3700 | 4822 051 20224 | 220k | 5% | 0,1W |
| 3706 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3707 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3708 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3710 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3711 | 4822 051 20332 | 3k3 | 5% | 0,1W |
| 3713 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3714 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3715 | 4822 051 20332 | 3k3 | 5% | 0,1W |
| 3716 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3717 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3718 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3719 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3720 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3721 | 4822 051 20103 | 10k | 5% | 0,1W |
| 3722 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3723 | 4822 051 10102 | 1k | 2% | 0,25W |
| 3724 | 4822 051 10102 | 1k | 2% | 0,25W |
| 4000 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4001 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4002 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4003 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4004 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4104 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4105 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4106 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4107 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4108 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4109 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4200 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4302 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4600 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4700 | 4822 051 10008 | CHIP JUMPER 1206 | | |
| 4701 | 4822 051 10008 | CHIP JUMPER 1206 | | |

CAPACITORS

| | | | | |
|------|----------------|-------|-----|-----|
| 2010 | 5322 124 21643 | 22µF | 20% | 40V |
| 2012 | 4822 124 40272 | 33µF | 20% | 16V |
| 2015 | 5322 124 21643 | 22µF | 20% | 40V |
| 2017 | 5322 124 21643 | 22µF | 20% | 40V |
| 2042 | 5322 124 21643 | 22µF | 20% | 40V |
| 2052 | 5322 124 21643 | 22µF | 20% | 40V |
| 2062 | 4822 124 40272 | 33µF | 20% | 16V |
| 2063 | 4822 124 40272 | 33µF | 20% | 16V |
| 2081 | 5322 124 21643 | 22µF | 20% | 40V |
| 2083 | 5322 124 21643 | 22µF | 20% | 40V |
| 2103 | 4822 124 40849 | 330µF | 20% | 16V |
| 2105 | 5322 121 42661 | 330nF | 5% | 63V |
| 2107 | 4822 124 41584 | 100µF | 20% | 10V |
| 2109 | 4822 124 40242 | 1µF | 20% | 63V |
| 2111 | 5322 121 42386 | 100nF | 5% | 63V |
| 2116 | 4822 124 40242 | 1µF | 20% | 63V |
| 2119 | 4822 124 41584 | 100µF | 20% | 10V |
| 2122 | 4822 124 40849 | 330µF | 20% | 16V |
| 2301 | 4822 124 40272 | 33µF | 20% | 16V |
| 2302 | 4822 124 40246 | 4,7µF | 20% | 63V |

CAPACITORS

| | | | | |
|------|----------------|--------|-----|-----|
| 2304 | 4822 124 40272 | 33µF | 20% | 16V |
| 2305 | 4822 124 40246 | 4,7µF | 20% | 63V |
| 2311 | 4822 124 40246 | 4,7µF | 20% | 63V |
| 2500 | 4822 124 80148 | 2200µF | 20% | 16V |
| 2502 | 4822 124 41853 | 1000µF | 20% | 16V |

| | | | | |
|------|----------------|------|-----|-----|
| 2702 | 4822 124 40272 | 33µF | 20% | 16V |
|------|----------------|------|-----|-----|

CHIP CAPACITORS

| | | | | |
|------|----------------|-------|-----|------|
| 2000 | 5322 122 31865 | 1,5nF | 10% | 63V |
| 2001 | 5322 116 80853 | 560pF | 5% | 63V |
| 2003 | 4822 122 31173 | 220pF | 10% | 500V |
| 2004 | 4822 122 31173 | 220pF | 10% | 500V |
| 2005 | 4822 122 31173 | 220pF | 10% | 500V |
| 2006 | 4822 122 31173 | 220pF | 10% | 500V |
| 2007 | 4822 122 31173 | 220pF | 10% | 500V |
| 2008 | 4822 122 31173 | 220pF | 10% | 500V |
| 2009 | 4822 122 33496 | 100nF | 10% | 63V |
| 2011 | 4822 122 33496 | 100nF | 10% | 63V |
| 2016 | 4822 122 33496 | 100nF | 10% | 63V |
| 2018 | 4822 122 33496 | 100nF | 10% | 63V |
| 2019 | 4822 122 33809 | 22nF | 20% | 50V |
| 2040 | 5322 122 32654 | 22nF | 10% | 63V |
| 2041 | 4822 126 10326 | 180pF | 5% | |
| 2043 | 5322 122 31863 | 330pF | 5% | 50V |
| 2044 | 4822 126 10326 | 180pF | 5% | |
| 2045 | 5322 122 32452 | 47pF | 5% | 50V |
| 2046 | 5322 122 32452 | 47pF | 5% | 50V |
| 2047 | 5322 122 32531 | 100pF | 5% | 50V |
| 2048 | 5322 122 32965 | 18pF | 5% | 50V |
| 2049 | 4822 126 10326 | 180pF | 5% | |
| 2050 | 4822 126 10326 | 180pF | 5% | |
| 2051 | 5322 122 31863 | 330pF | 5% | 50V |
| 2060 | 4822 122 33496 | 100nF | 10% | 63V |
| 2061 | 4822 122 33496 | 100nF | 10% | 63V |
| 2064 | 4822 122 33342 | 33nF | 10% | 63V |
| 2065 | 4822 122 33496 | 100nF | 10% | 63V |
| 2066 | 4822 122 33175 | 2,2nF | 20% | 50V |
| 2070 | 4822 122 32627 | 2,2nF | 10% | 50V |
| 2071 | 4822 122 33496 | 100nF | 10% | 63V |
| 2072 | 4822 126 10326 | 180pF | 5% | |
| 2080 | 4822 122 33496 | 100nF | 10% | 63V |
| 2082 | 4822 122 33496 | 100nF | 10% | 63V |
| 2084 | 4822 126 10326 | 180pF | 5% | |
| 2085 | 4822 122 33496 | 100nF | 10% | 63V |
| 2086 | 5322 126 10465 | 3,9nF | 10% | 63V |
| 2101 | 5322 122 32452 | 47pF | 5% | 50V |
| 2102 | 4822 122 33175 | 2,2nF | 20% | 50V |
| 2104 | 4822 122 33496 | 100nF | 10% | 63V |
| 2106 | 4822 122 33496 | 100nF | 10% | 63V |
| 2108 | 4822 122 33809 | 22nF | 20% | 50V |
| 2110 | 5322 122 32659 | 33pF | 5% | 50V |
| 2112 | 4822 122 33496 | 100nF | 10% | 63V |
| 2114 | 5322 122 32452 | 47pF | 5% | 50V |
| 2115 | 5322 122 32452 | 47pF | 5% | 50V |
| 2117 | 5322 126 10223 | 4,7nF | 10% | 63V |
| 2118 | 5322 126 10223 | 4,7nF | 10% | 63V |
| 2120 | 4822 122 33496 | 100nF | 10% | 63V |
| 2121 | 4822 122 33496 | 100nF | 10% | 63V |

CHIP CAPACITORS

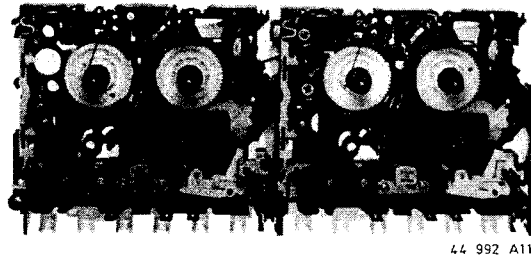
| | | | | |
|------|----------------|-------|-----|-----|
| 2123 | 4822 122 33496 | 100nF | 10% | 63V |
| 2125 | 5322 126 10223 | 4,7nF | 10% | 63V |
| 2140 | 4822 122 33496 | 100nF | 10% | 63V |
| 2141 | 4822 122 32542 | 47nF | 10% | 63V |
| 2253 | 4822 122 32183 | 56nF | 10% | 50V |
| 2300 | 5322 116 80853 | 560pF | 5% | 63V |
| 2303 | 4822 122 33216 | 270pF | 5% | 50V |
| 2306 | 4822 122 33496 | 100nF | 10% | 63V |
| 2309 | 4822 122 33216 | 270pF | 5% | 50V |
| 2310 | 5322 116 80853 | 560pF | 5% | 63V |
| 2312 | 4822 122 33219 | 1,8nF | 10% | 50V |
| 2313 | 4822 122 33219 | 1,8nF | 10% | 50V |
| 2501 | 4822 122 33496 | 100nF | 10% | 63V |
| 2503 | 4822 122 33496 | 100nF | 10% | 63V |
| 2504 | 4822 122 33496 | 100nF | 10% | 63V |
| 2550 | 4822 122 33175 | 2,2nF | 20% | 50V |
| 2610 | 4822 122 33496 | 100nF | 10% | 63V |
| 2611 | 4822 122 33496 | 100nF | 10% | 63V |
| 2612 | 4822 122 33496 | 100nF | 10% | 63V |
| 2703 | 4822 122 33809 | 22nF | 20% | 50V |
| 2704 | 4822 122 33175 | 2,2nF | 20% | 50V |

SET PARTS

4822 130 83092 LED (Volume pot)

ACCESSORIES

4822 218 10513 IR REMOTE CONTROL
4822 445 10362 LOUDSPEAKER BOX
4822 321 10831 MAINS CORD /20, /22
4822 321 10918 MAINS CORD /25



For details and exploded view see Service Manual of tape transport RN/RR, RDN/RDR (general documentation)

Service Manual

GB MAINTENANCE

It is recommended to clean the recorder after approx. 500 hours of operation.

To be cleaned with alcohol or spirit

- Erase head
- Recording/playback head
- Capstan
- Pressure roller

F ENTRETIEN

L'appareil devra être nettoyé après env. 500 heures de marche aux points les plus importants.

Nettoyer les éléments suivants à l'alcool ou à l'alcool à brûler:

- Tête effacement
- Tête enregistrement/reproduction
- Cabestan
- Galet presseur

I MANUTENZIONE

E consigliabile pulire l'apparecchio dopo circa 500 ore di funzionamento ai punti principali.

Pulire con alcool

- Testina di cancellazione
- Testina di registrazione/riproduzione
- Capstan
- Rullo preminastro

NL ONDERHOUD

Aanbevolen wordt het apparaat na ca. 500 bedrijfsuren schoon te maken

Schoonmaken met alcohol of spiritus:

- Wiskop
- Opneem-/weergeefkop
- Toonas
- Drukrol

D WARTUNG

Es empfiehlt sich, das Gerät nach ca. 500 Betriebsstunden zu reinigen

Reinigen mit Alkohol oder Spiritus:

- Löschkopf
- Aufnahme/Wiedergabe-Kopf
- Tonachse
- Andruckrolle

SPECIAL FEATURES

GB CONTINUOUS PLAY

Definition: "Play" starts on deck A (play back deck). After tape end on deck A, deck B (REC/PB - deck) will be going on with "Play" till tape end. Then both decks will be in "Stop" - mode due to full auto shut off.

Operating sequence:

- 1) start with "Play" on deck A
- 2) switch "Pause" on deck B
- 3) switch "Play" on deck B

After tape end on deck A auto stop - mechanism is working. The locked "play" - button on deck A and the "pause" - button on deck B will be released. "Play" - mode on deck B will now be active. After tape end on deck B full auto shut off will be activated.

SYNCHRO START

"COPY" from deck A to deck B

Operating sequence:

- 1) switch "Pause" on deck B
- 2) switch "REC" (one touch) on deck B
- 3) switch "Play" on deck A

In that moment when the "play" - button on deck A will be depressed the "pause" - button on deck B will be released. Now "REC" - mode on deck B will be active. Both decks will be working.

If one of the cassettes reaches tape end full auto shut off will be activated and COPY is finished.

NL ONONDERBROKEN WEERGEVEN

Omschrijving: Het weergeven begint op deck A (weergavedeck). Nadat op deck A het einde van de band is bereikt, gaat het weergeven door op deck B (opname/weergave-deck). Op dat moment worden beide decks geheel automatisch in de stand "Stop" geschakeld. Bedieningsvolgorde:

- 1) druk op toets "Play" op deck A
- 2) druk op toets "Pause" op deck B
- 3) druk op toets "Play" op deck B

Nadat het einde van de band op deck A is bereikt, treedt het autostop-mechanisme in werking. De vergrendelde toets "Play" op deck A en de toets "Pause" op deck B worden dan vrijgegeven. De stand "Play" op deck B is nu geactiveerd. Nadat het einde van de band op deck B is bereikt, wordt de volledig automatische uitschakeling geactiveerd.

SYNCHROON STARTEN

"KOPIEREN" van deck A naar deck B

Bedieningsvolgorde:

- 1) druk op toets "Pause" op deck B
- 2) druk (een keer) op toets "REC" op deck B
- 3) druk op toets "Play" op deck A

Op het moment dat de toets "Play" op deck A wordt ingedrukt, wordt de toets "Pause" op deck B vrijgegeven. De stand "REC" op deck B is nu geactiveerd. Beide decks zijn in werking.

Indien op een van de cassettes het einde van de band wordt bereikt, wordt de volledig automatische uitschakeling geactiveerd en het kopiëren beëindigd.

F LECTURE EN CONTINU

Définition: La lecture ("play") démarre sur la platine A (platine de lecture). A l'arrivée en fin de bande sur la platine A, la platine B (platine d'enregistrement/lecture) poursuivra la lecture ("play") jusqu'à la fin de la bande. Ensuite, les deux platines seront en mode arrêt ("stop") grâce à l'arrêt total automatique.

Ordre de fonctionnement :

- 1) mettez en marche avec "Play" sur la platine A
- 2) appuyez sur "Pause" sur la platine B
- 3) appuyez sur "Play" sur la platine B

Après l'arrivée en fin de bande sur la platine A, le mécanisme d'arrêt automatique entre en fonctionnement. Les touches verrouillées "play" sur la platine A et "pause" sur la platine B sont alors débloquées. Le mode lecture ("play") sur la platine B est à présent actif. Après l'arrivée en fin de bande sur la platine B, l'arrêt total automatique sera activé. Lorsque la touche de "sélection de mode" est en position 2 (inversée), il est alors possible d'écouter trois faces de deux cassettes en continu.

DEPART SYNCHRONISE

Pour la COPIE de la platine A vers la platine B

Ordre de fonctionnement :

- 1) appuyez sur "Pause" sur la platine B
- 2) appuyez sur "REC" (enregistrement à une touche) sur la platine B

- 3) appuyez sur "Play" sur la platine A

Au moment où la touche "play" (lecture) sur la platine A sera enfoncée, la touche "pause" sur la platine B sera dégagée. Le mode "REC" (enregistrement) sur la platine B est à présent actif. Les deux platines fonctionnent. Si l'une des cassettes arrive en fin de bande, l'arrêt total automatique sera activé et la COPIE terminée.

D CONTINUOUS PLAY

Definition: "Play" beginnt auf Laufwerk A (Wiedergabe - Laufwerk). Am Bandende von Laufwerk A setzt Laufwerk B (Aufn./Wg - Laufwerk) mit "Play" fort und läuft bis Bandende. Danach sind beide Laufwerke abgeschaltet. Bedienungsablauf:

- 1) "Play" - Taste auf Laufwerk A drücken
- 2) "Pause" - Taste auf Laufwerk B drücken
- 3) "Play" - Taste auf Laufwerk B drücken

Am Bandende von Laufwerk A arbeitet der Auto stop - Mechanismus. Die "Play" - Taste von Laufwerk A und die "Pause" - Taste von Laufwerk B werden gelöst. Auf Laufwerk B ist nun die "Play" - Funktion eingeschaltet. Am Bandende von Laufwerk B schaltet die automatische Endabschaltung ab.

SYNCHRO START

"Kopieren" von Laufwerk A auf Laufwerk B.

Bedienungsablauf:

- 1) "Pause" - Taste von Laufwerk B drücken
- 2) "REC" - Taste (one touch) von Laufwerk B drücken
- 3) "Play" - Taste von Laufwerk A drücken

In dem Moment wo die "Play" - Taste von Laufwerk A gedrückt wird, wird die "Pause" - Taste von Laufwerk B gelöst. "Aufnahme" - Modus wird dadurch auf Laufwerk B aktiviert und beide Laufwerke arbeiten.

Erreicht eine der beiden Kassetten das Bandende, schaltet die automatische Endabschaltung ab und der Kopierbetrieb wird beendet.

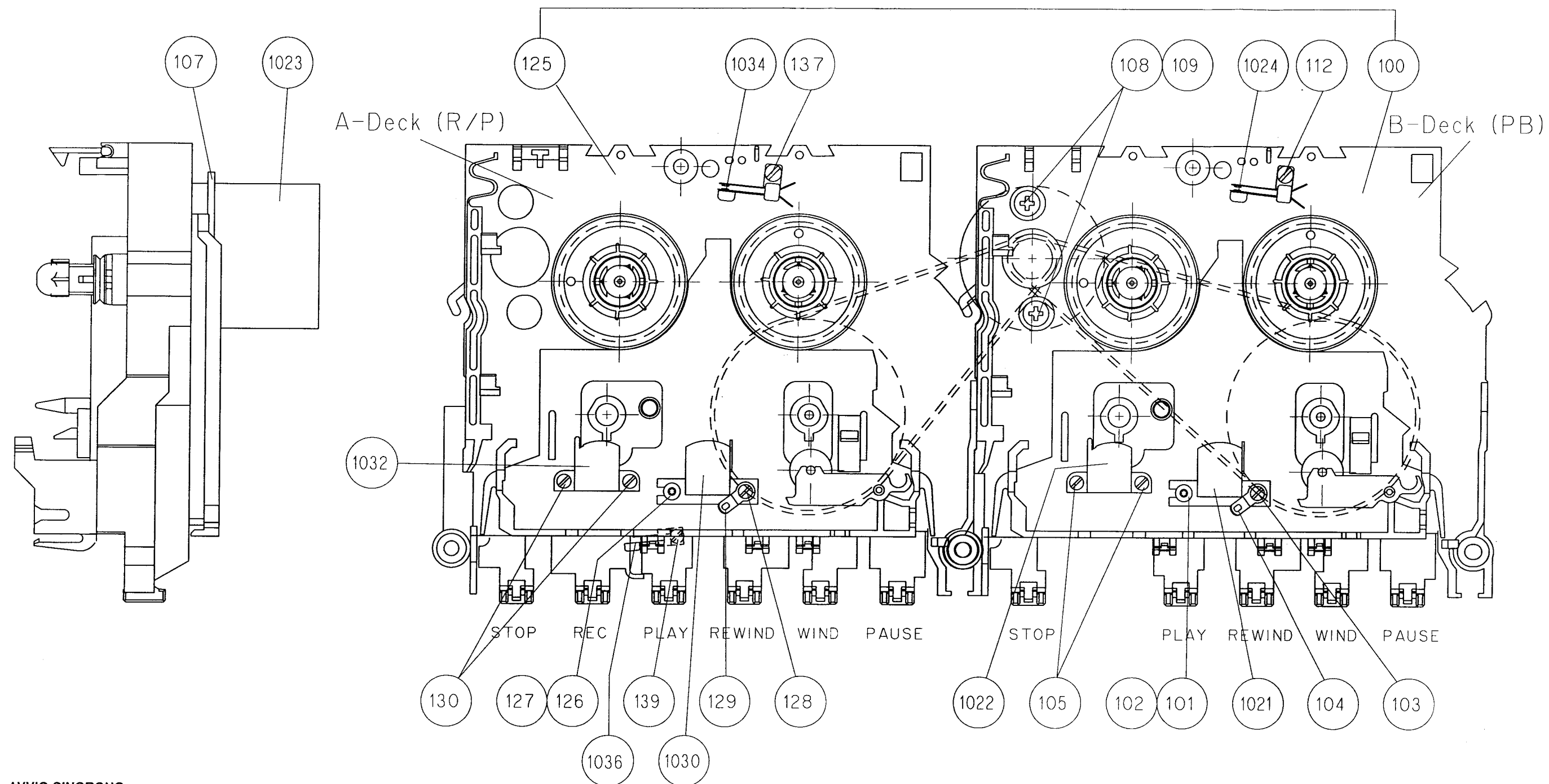
I RIPRODUZIONE CONTINUA

Funzionamento: la riproduzione inizia con la cassetta nel riproduttore A. Alla fine del nastro della cassetta nel riproduttore A, la riproduzione viene continuata con la cassetta nel registratore/riproduttore B. In tale momento, ambedue gli apparecchi vengono commutati automaticamente nel modo di arresto.

Ordine di comando:

- 1) premere il tasto "Play" sul riproduttore A
- 2) premere il tasto "Pause" sul registratore/riproduttore B
- 3) premere il tasto "Play" sul registratore/riproduttore B

Alla fine del nastro della cassetta nel riproduttore A, viene attivato il meccanismo di arresto automatico dello stesso. Viene rilasciato il tasto "Play" sul riproduttore A ed il tasto "Pause" sul registratore/riproduttore B. Viene avviata la riproduzione della cassetta nel registratore/riproduttore B. Quando è stata raggiunta la fine del nastro della cassetta nel registratore/riproduttore B, ambedue gli apparecchi vengono arrestati automaticamente.



AVVIO SINCRONO

COPIATURA della cassetta nel riproduttore A sulla cassetta nel registratore/riproduttore B.

Ordine di comando:

- 1) premere il tasto **"PAUSE"** sul registratore/riproduttore B.
- 2) premere (una volta) il tasto **"REC"** sul registratore/riproduttore B.
- 3) premere il tasto **"PLAY"** sul riproduttore A.

Premendo il tasto **"PLAY"** sul riproduttore A verrà rilasciato il tasto **"PAUSE"** sul registratore/riproduttore B e quest'ultimo predisposto per la registrazione. La cassetta nel riproduttore A viene copiata sulla cassetta nel registratore/riproduttore B. Quando viene raggiunta la fine del nastro di una delle cassette, ambedue gli apparecchi vengono arrestati automaticamente.

| | | |
|------|----------------|------------------------|
| 100 | 4822 691 10296 | RN 0 assy |
| 101 | 4822 492 51473 | spring azimuth |
| 107 | 4822 529 10254 | damper, motor |
| 108 | 4822 502 11866 | screw, motor |
| 125 | 4822 691 10296 | RN 0 assy |
| 126 | 4822 492 51473 | spring, azimuth |
| 1021 | 4822 249 10397 | head, Rec/Pb |
| 1022 | 4822 404 10685 | head, dummy |
| 1023 | 4822 361 21637 | motor, MSI-5U2LWDR |
| 1024 | 4822 271 30598 | switch indication play |
| 1030 | 4822 249 10397 | head, Rec/Pb |
| 1032 | 4822 249 20072 | head, erase |
| 1034 | 4822 271 30598 | switch indication play |
| 1036 | 4822 278 90624 | switch record |

General parts

| | | |
|-------|----------------|---------------------------|
| 7/67 | 4822 520 10718 | bearing plate |
| 38 | 4822 520 40134 | ball, bearing |
| 40 | 4822 402 10037 | lever, pinch roller right |
| 41/76 | 4822 528 70646 | pinch roller |
| 43 | 4822 404 10853 | slide, key lock |
| 58 | 4822 358 30929 | drive belt RN0 S (long) |
| 98 | 4822 358 30928 | drive belt RN0 D (short) |
| 402 | 4822 528 20676 | take-up clutch assy |

(pos. number refer to exploded view in General Documentation 4822 725 23763)

Only those parts of which a service code number is stated are service parts.